

C



B



A



FIG. 1

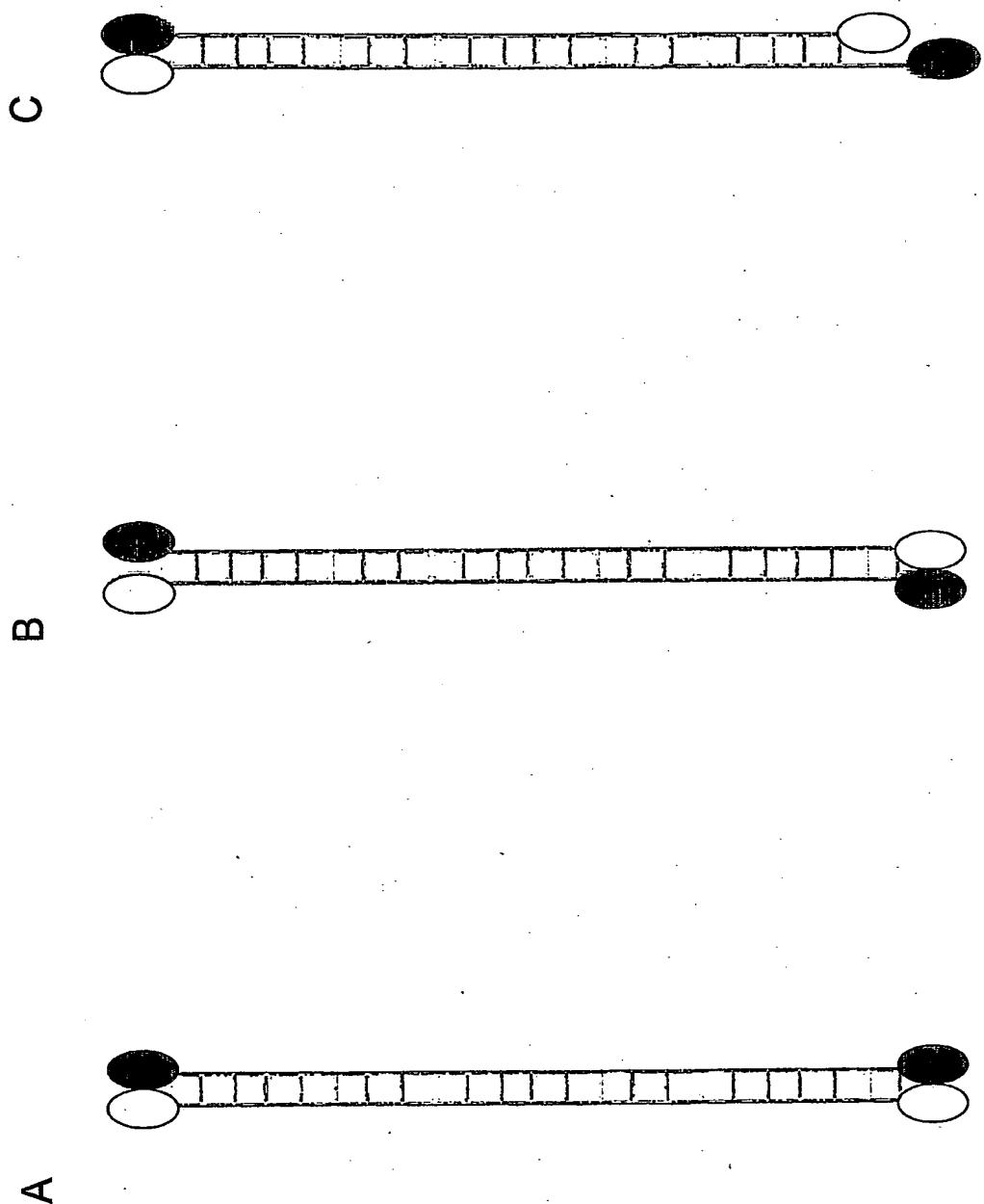
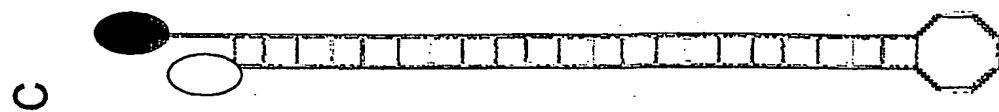


FIG. 2



B



A



FIG. 3

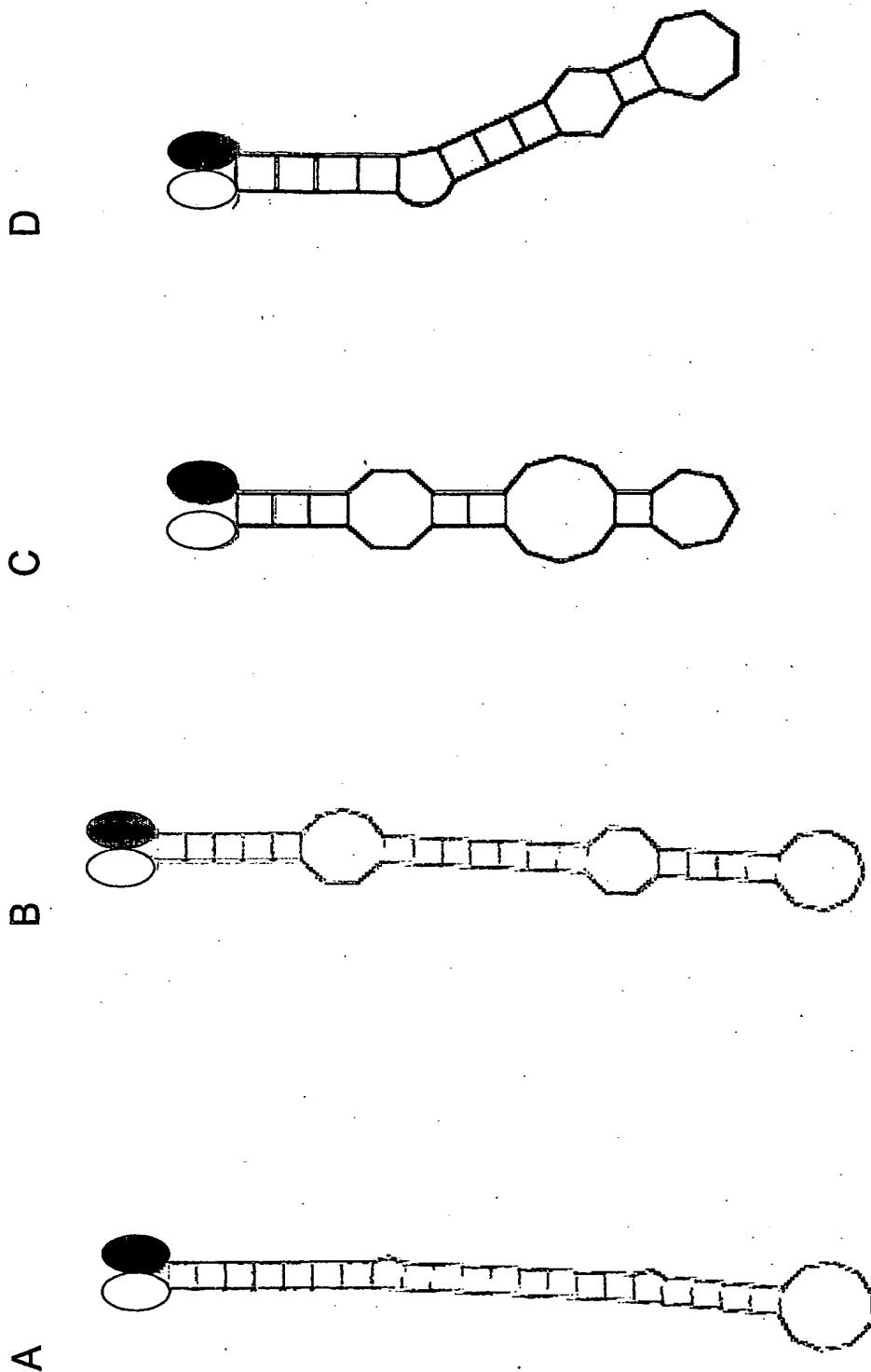


FIG. 4

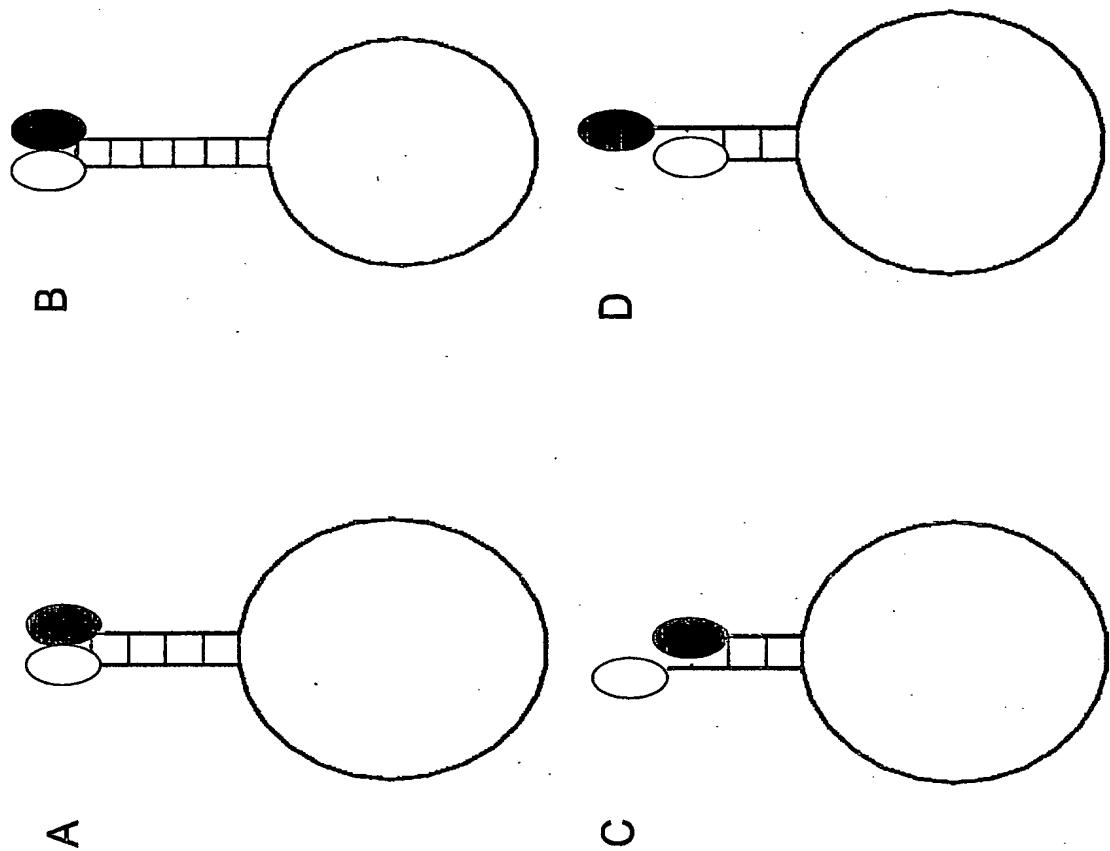
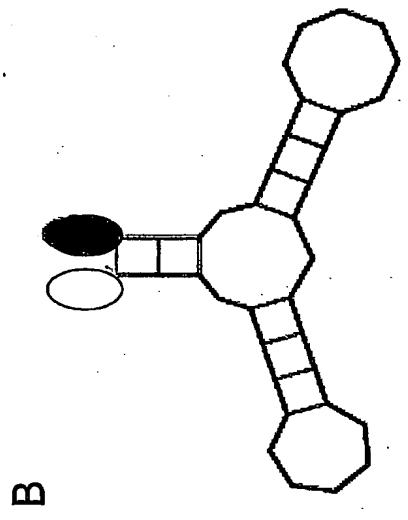
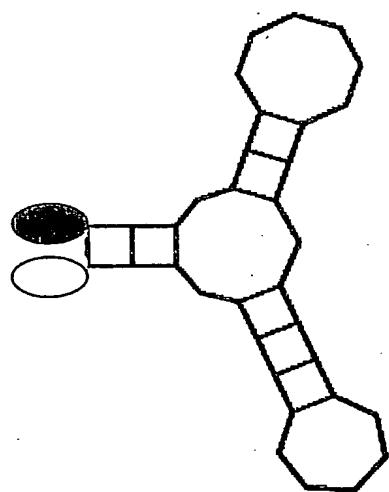


FIG. 5



B



A

FIG. 6

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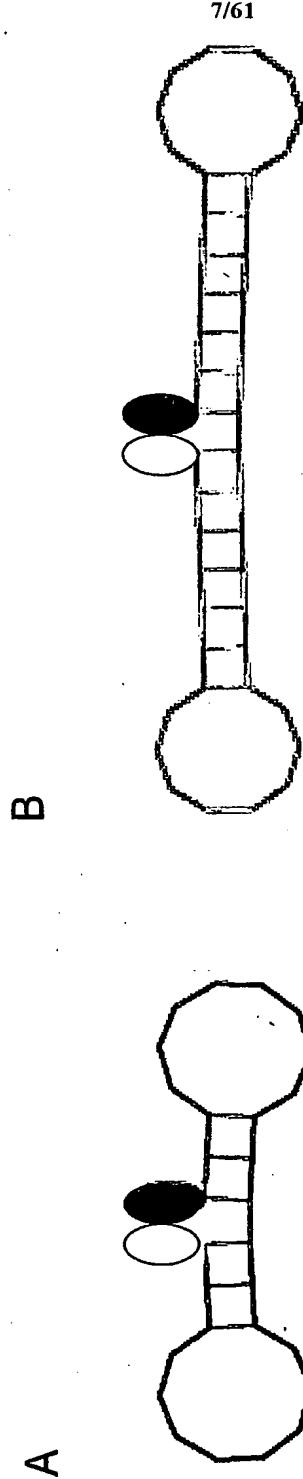


FIG. 7

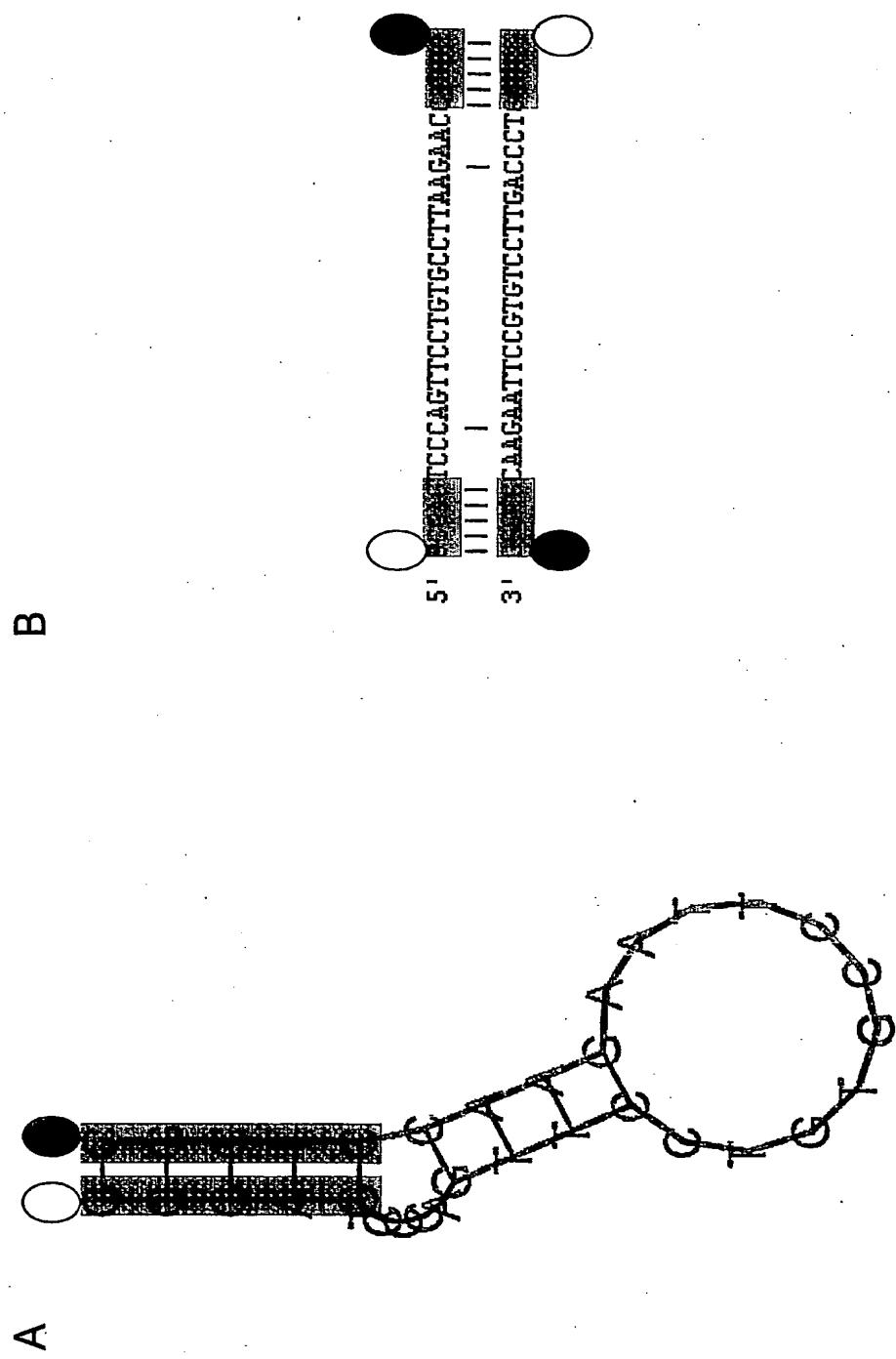
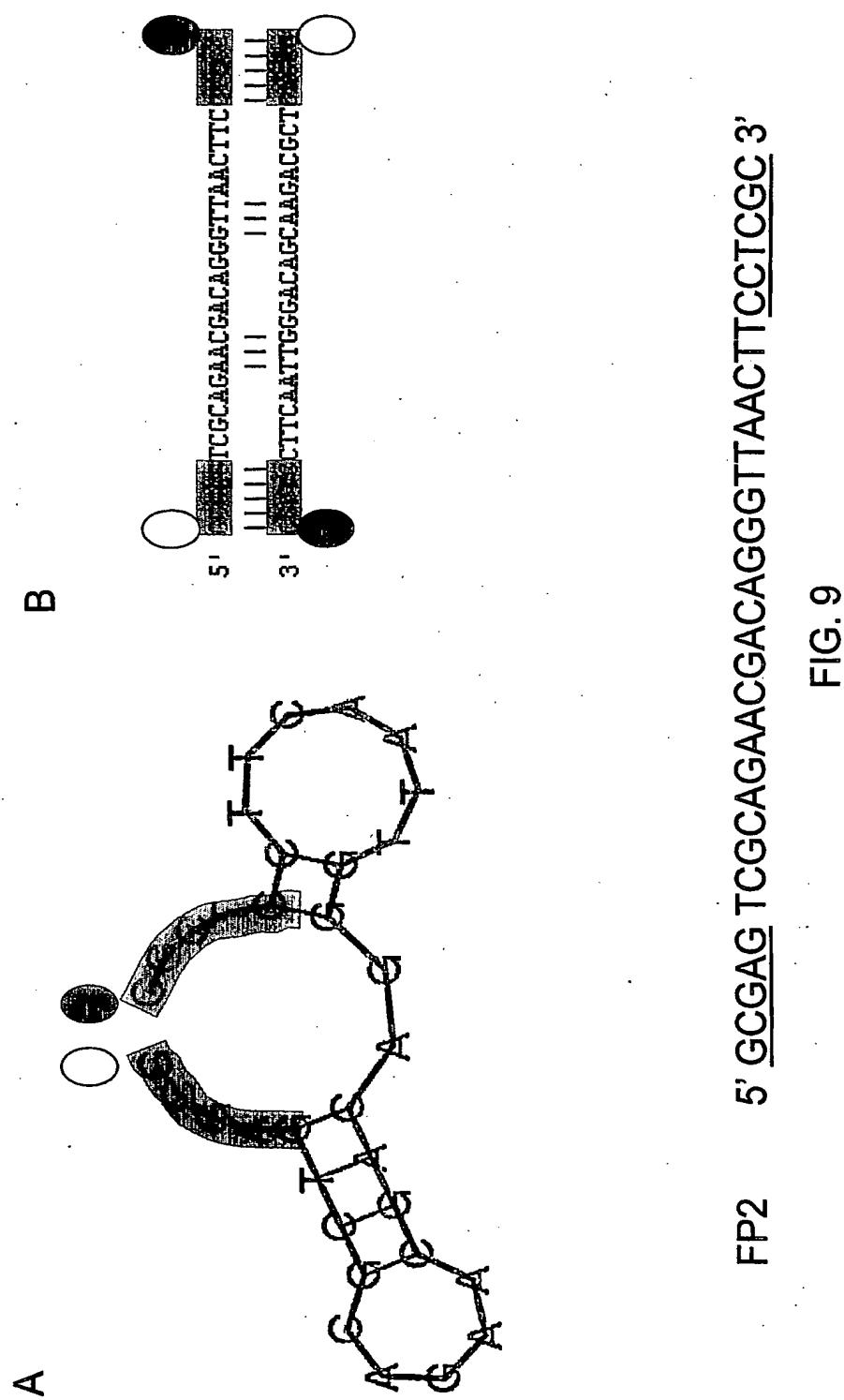
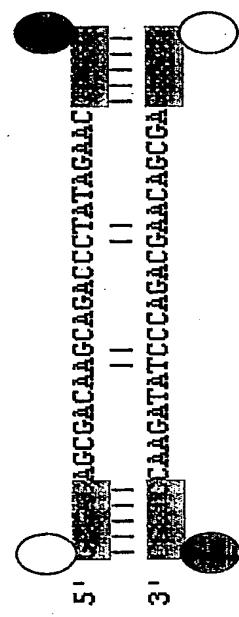


FIG. 8





5' GCGAG AGCGACAAGGAGACCCCTATAGAAC CTCGC 3'

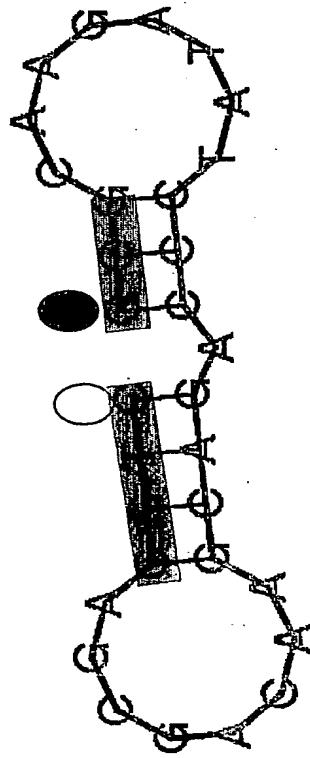
FP3

FIG. 10

5' CTGC AGCGACAAGCAGACCCTATAGAAC GGG 3'

FP4

FIG. 11



5' ggaa TCCCAGTTCCCTGTGCCTTAAGAAC ttcc 3'

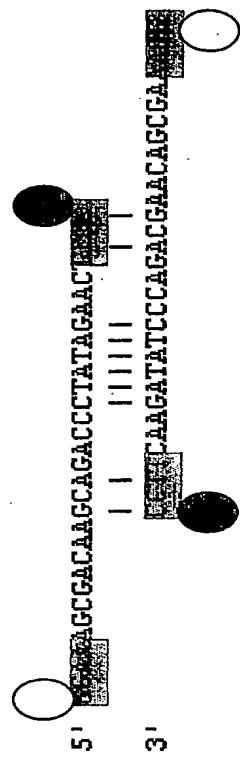
FP5

FIG. 12

5' ggaa TCGCAGAACGACAGGGTTAACTTC ttcc 3'

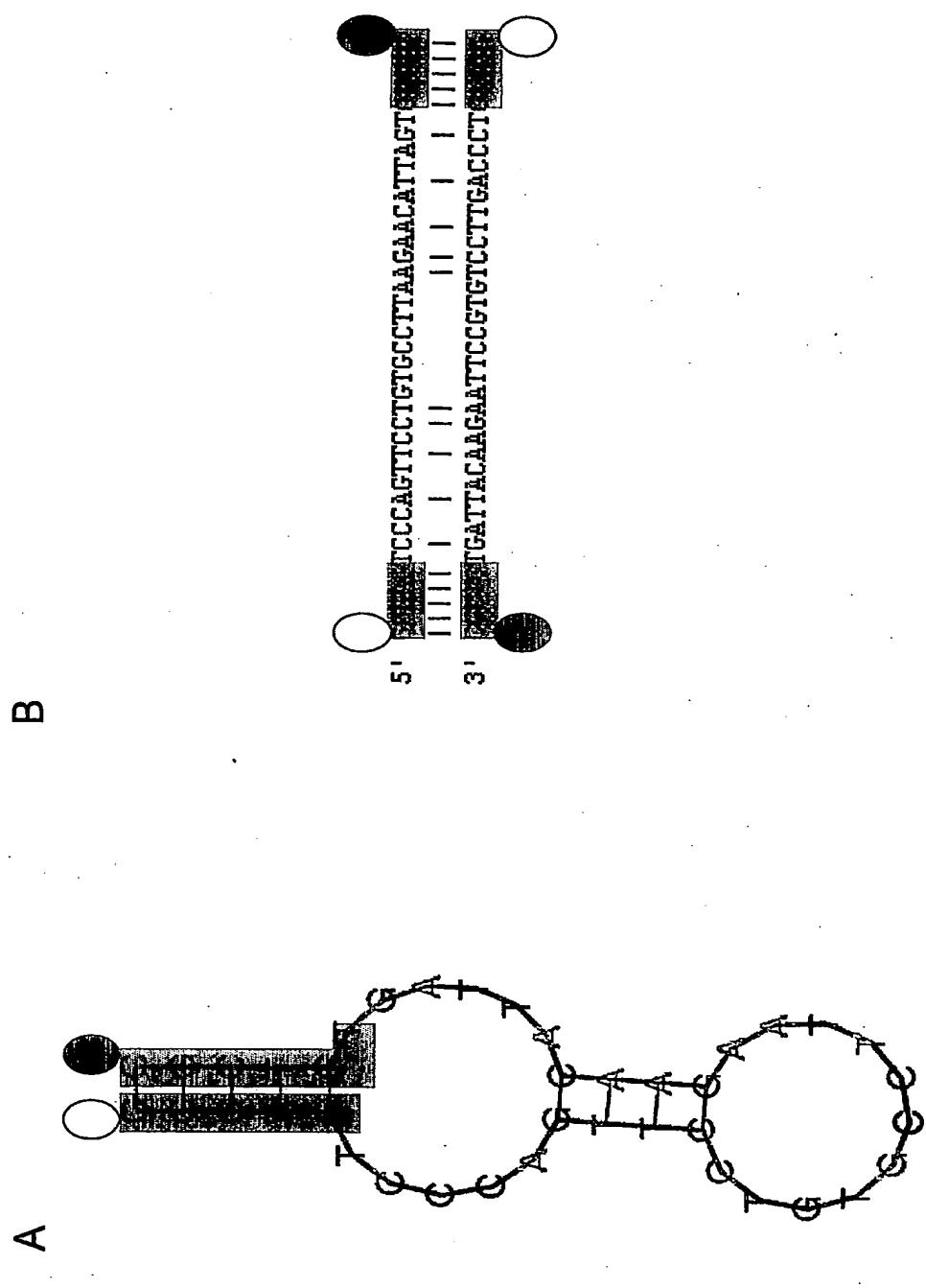
FP6

FIG. 13



FP7 5' ggaa AGCGACAAGCAGACCTATAGAAC ttcc 3'

FIG. 14



5' GCGAG TCCCAGTTCTGTGCCCTAAGAACattagtCTCGGC 3'

FIG. 15

FP8

5' ggaa TCCCCAGTTCCCTGTGCCCTTAAGAACatttagttcc 3'

FP9

FIG. 16

FP10 5' gtgat TCCCCAGTTCCCTGCTTAAGAAC atcac 3'

FIG. 17

FP11 5' ggac TCCCCAGTTCCCTGTGCCCTAAGAAC gtcc 3'

FIG. 18

FP12 5' ggg TCCCCAGTTCCCTGTGCCCTTAAGAAC ccc 3'

FIG. 19

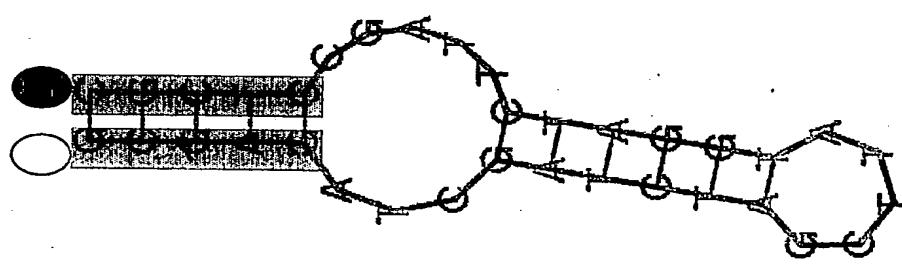
FP13 5' gca TCCCCAGTTCCCTGTGCCTTAAGAAC cgc 3'

FIG. 20

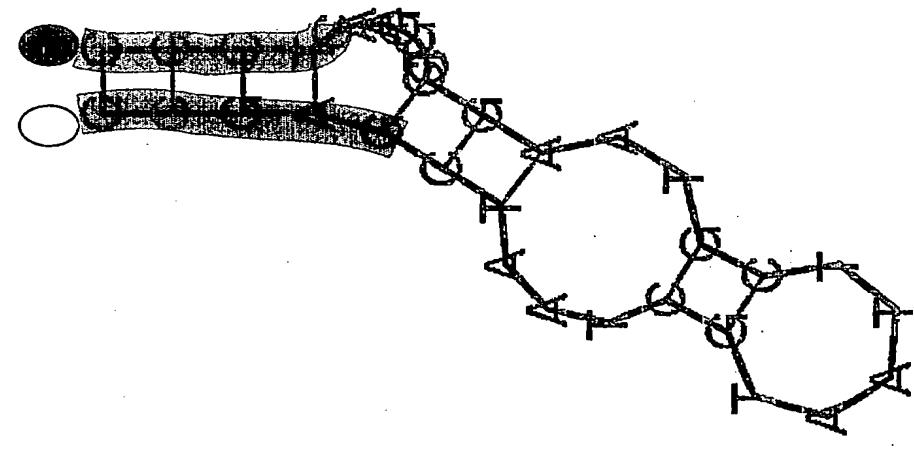
5' ccgag ATCGATCTAGCTTATGGATCTTAGC CTCGGC 3'

FIG. 21

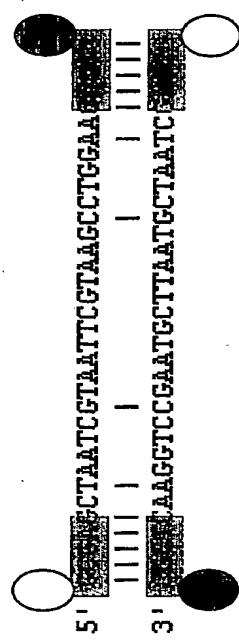
FP14



B

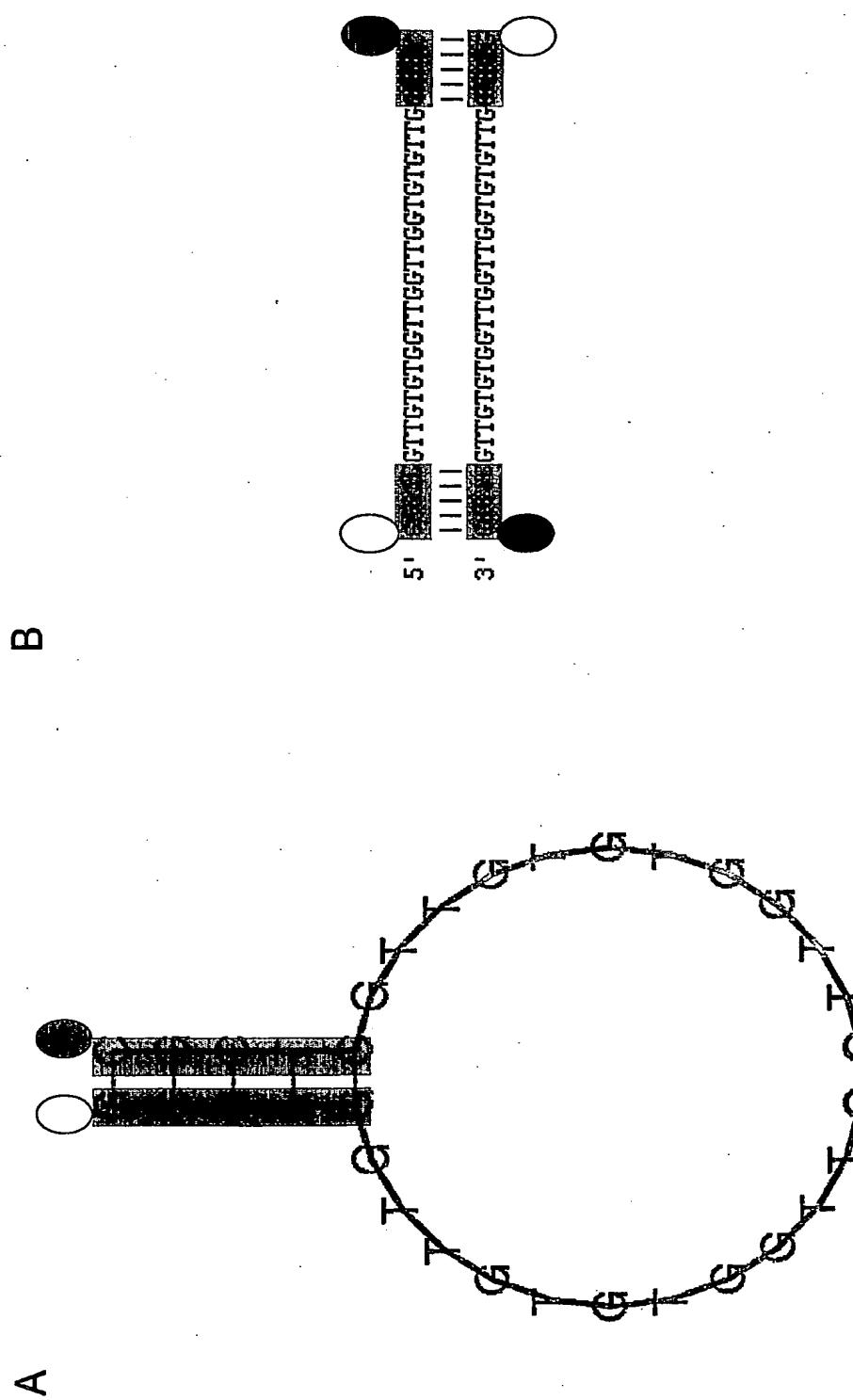


A



FP15 5' gcgag CTAATCGTAATTCTGGAA CTCCGC 3'

FIG. 22

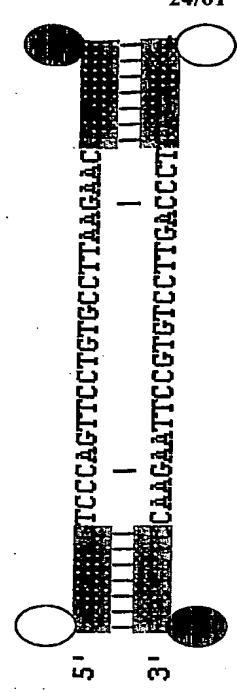
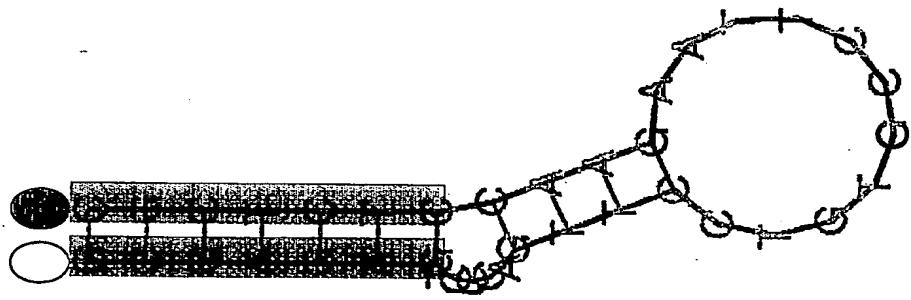


FP16 5' gcgag GTTGTGGTGGTGTGTG ctcgc 3'

FIG. 23

B

A



FP17

5' GCGAGAG TCCCAGTTCCCTGTGCCTTAAGAAC CTCTCGC 3'

FIG. 24

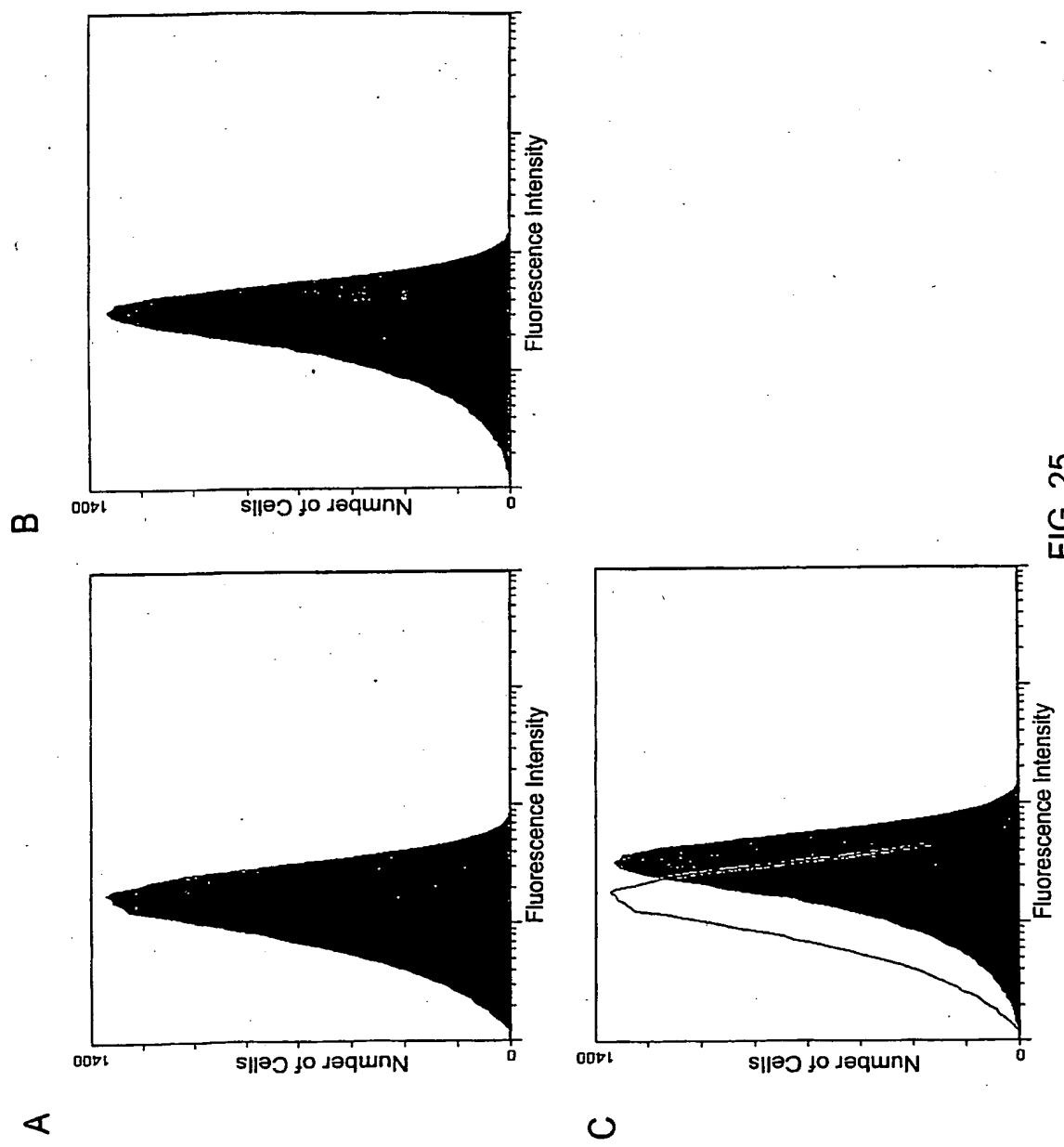
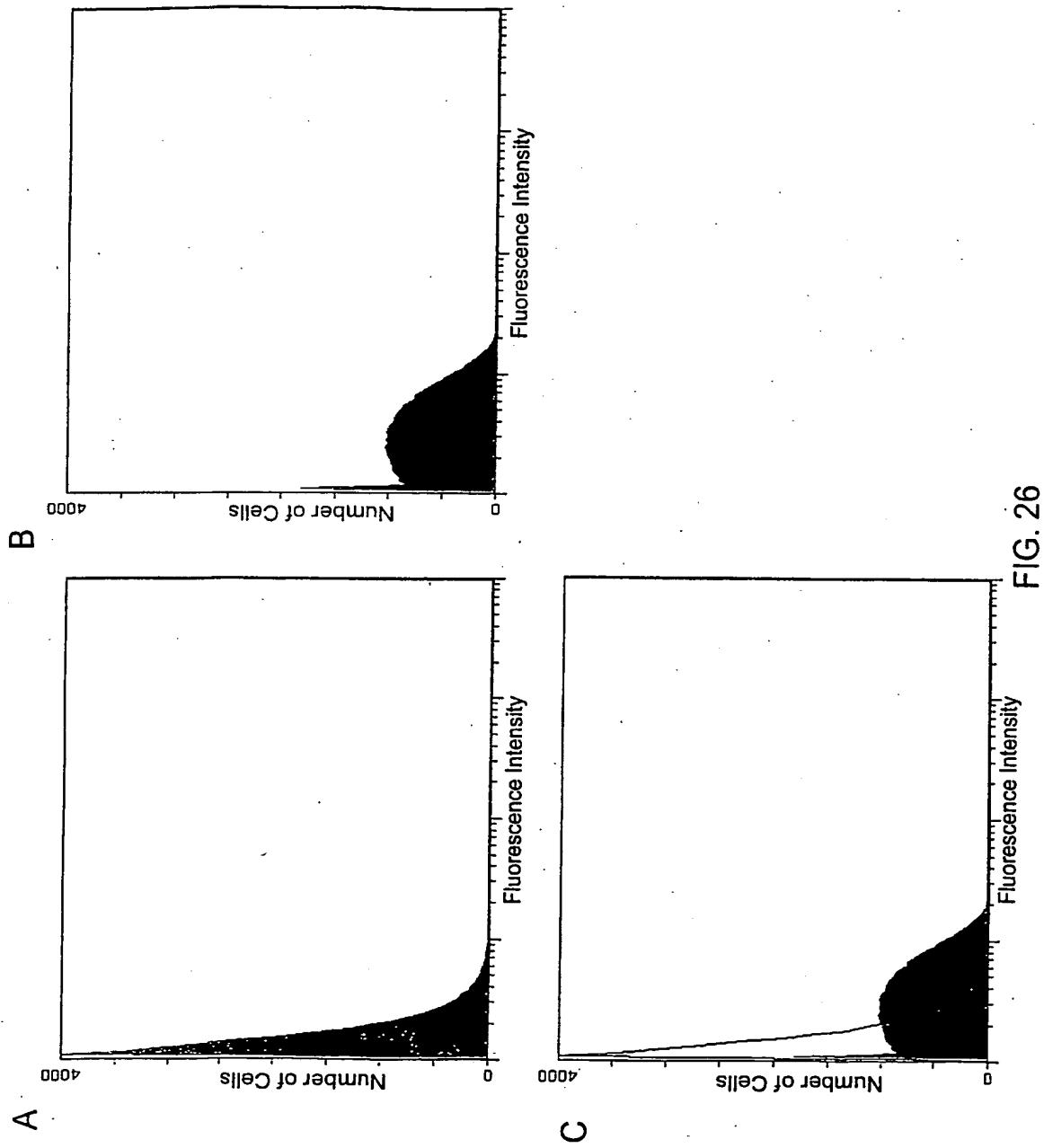


FIG. 25



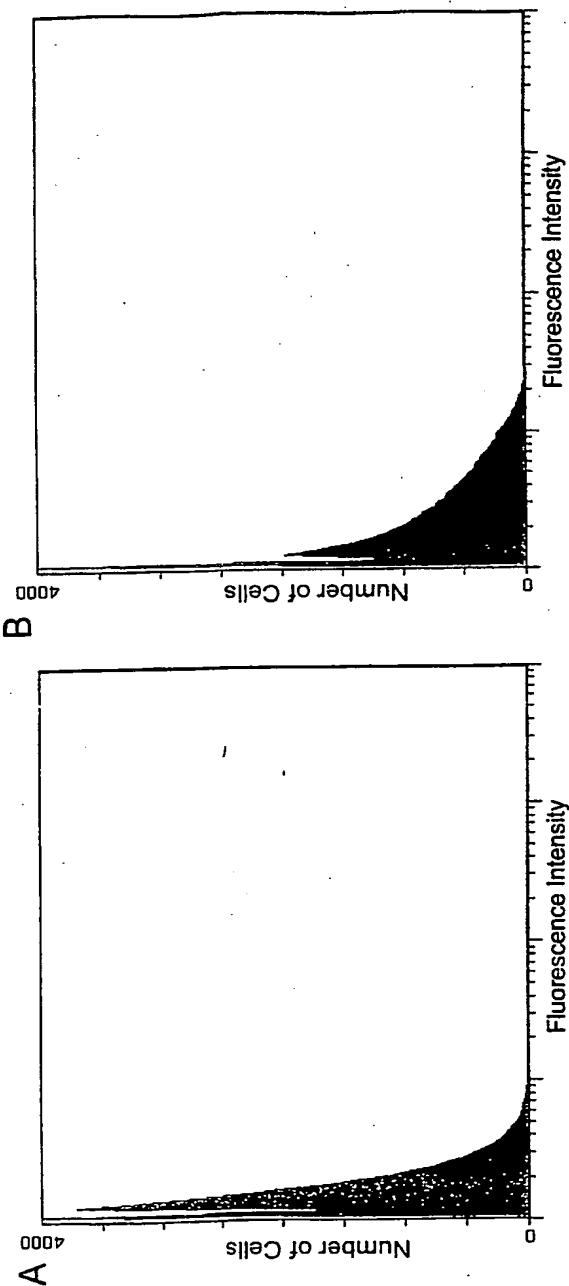
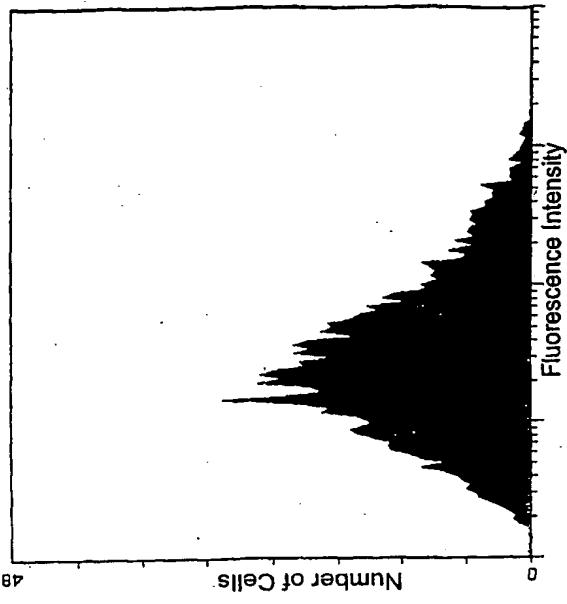
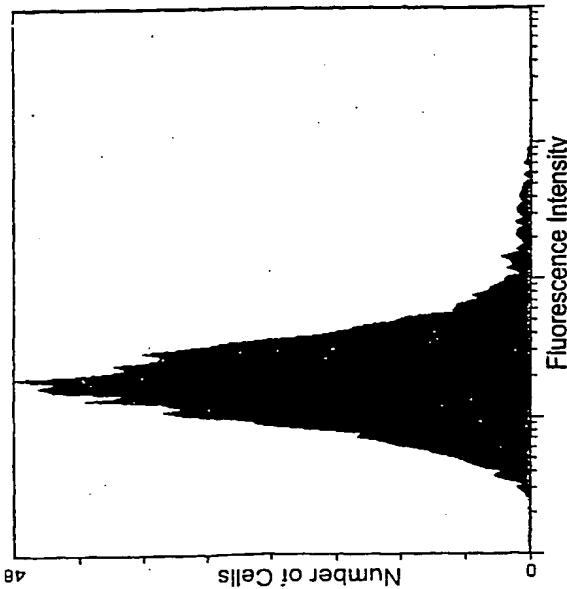


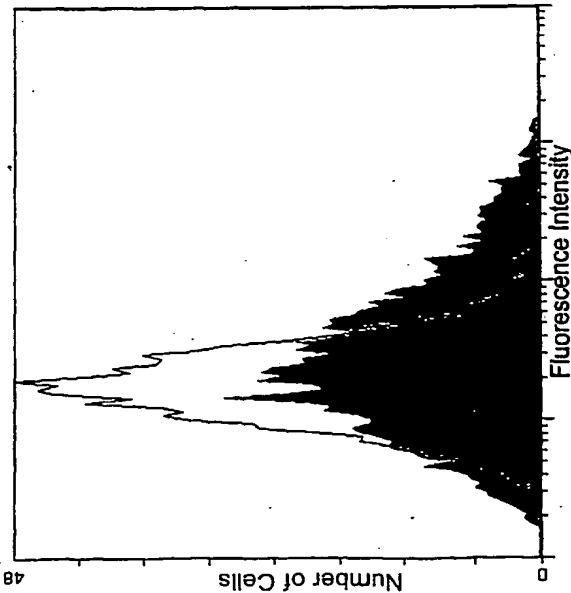
FIG. 27



B



A



C

FIG. 28

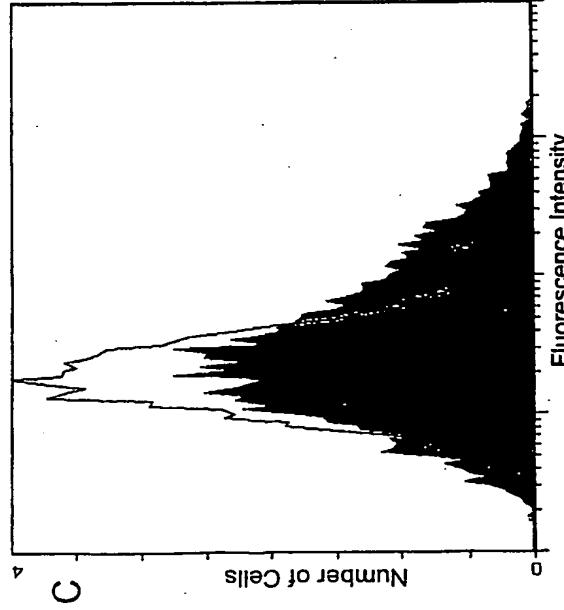
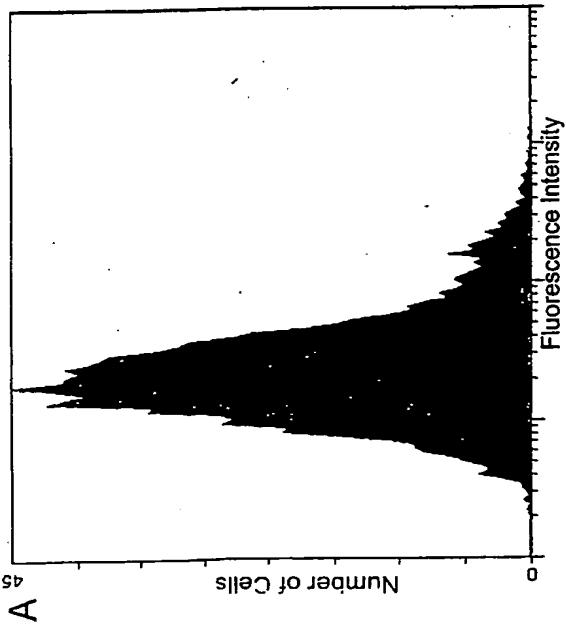
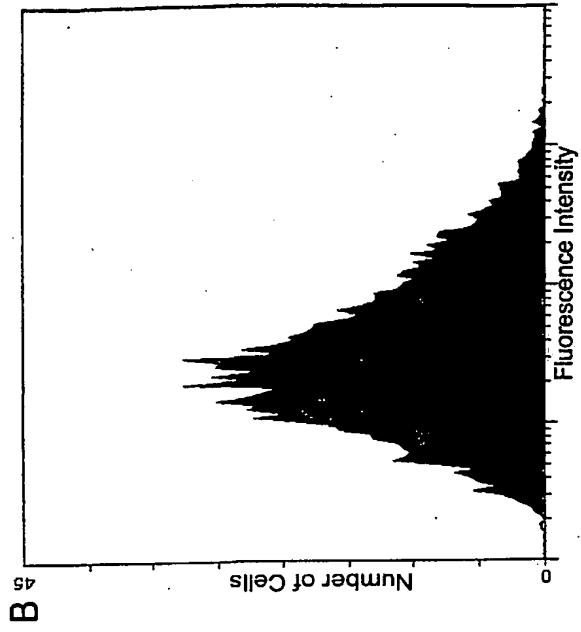
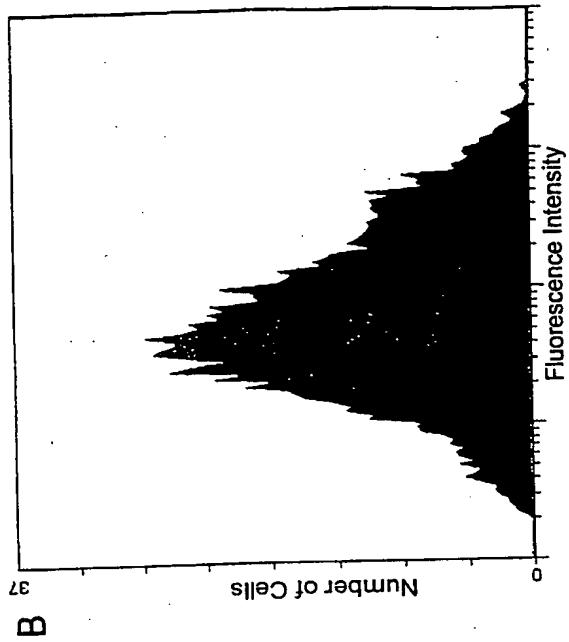
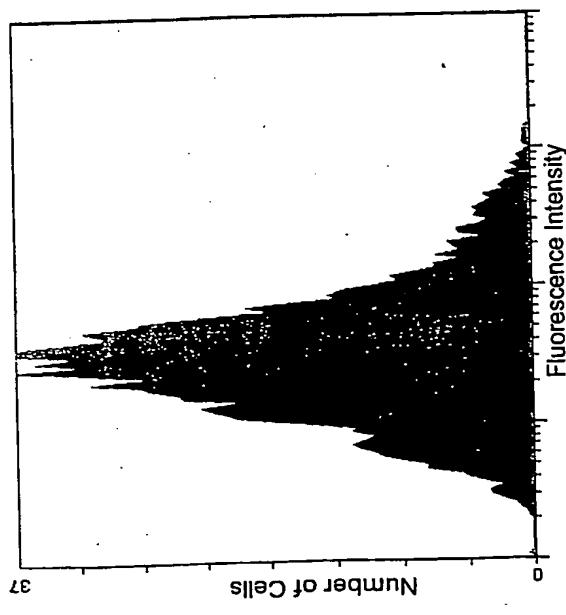


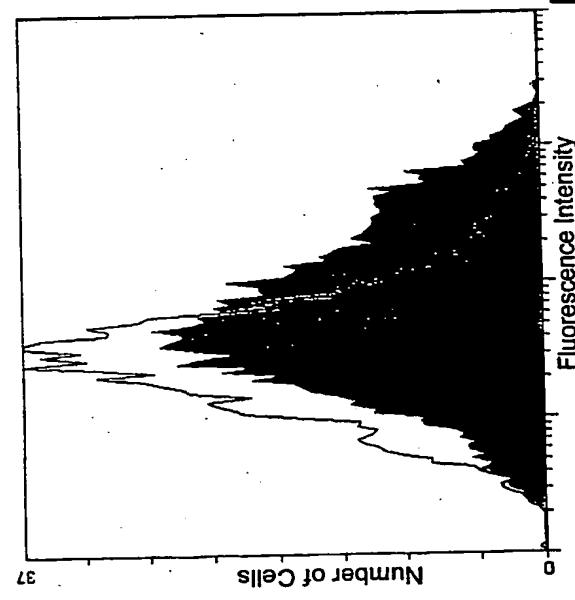
FIG. 29



B



A



C

FIG. 30

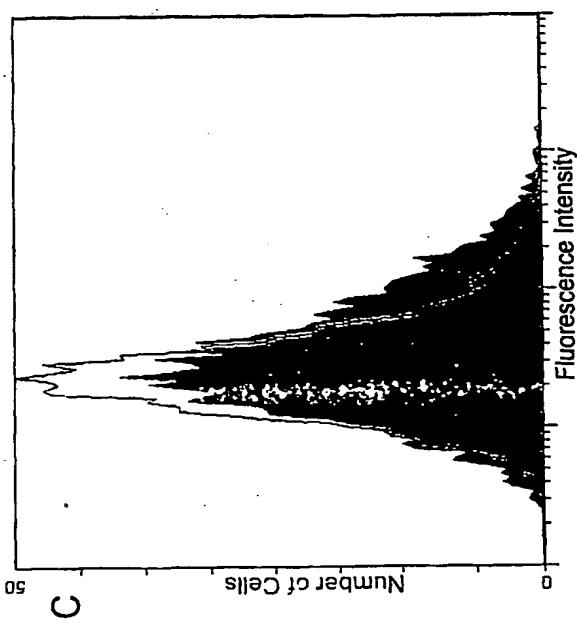
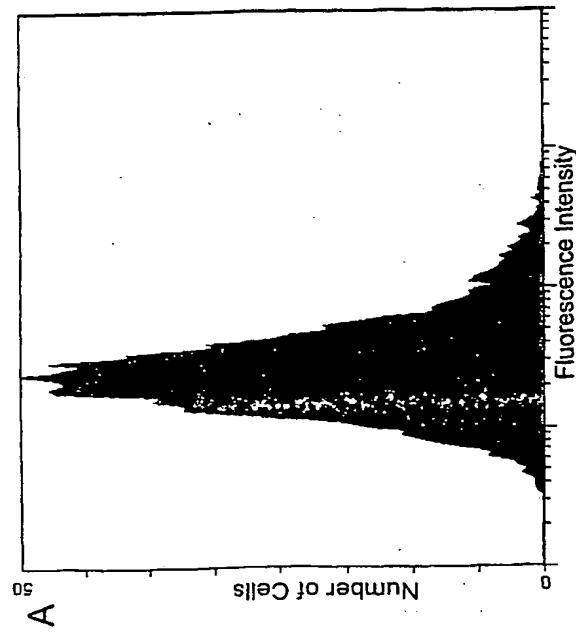
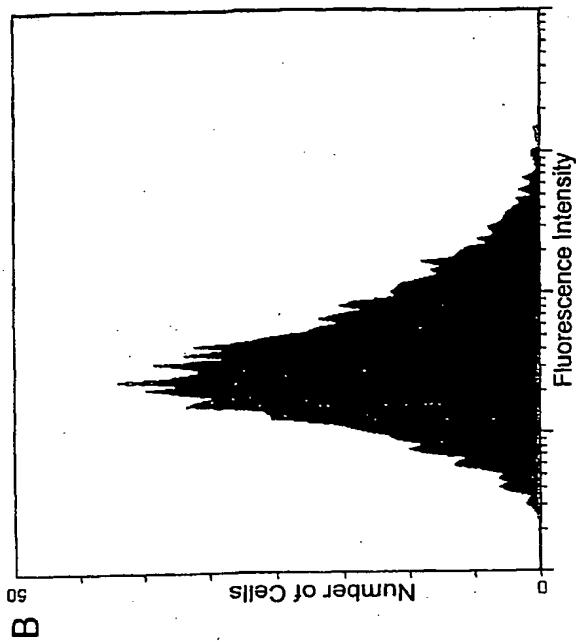
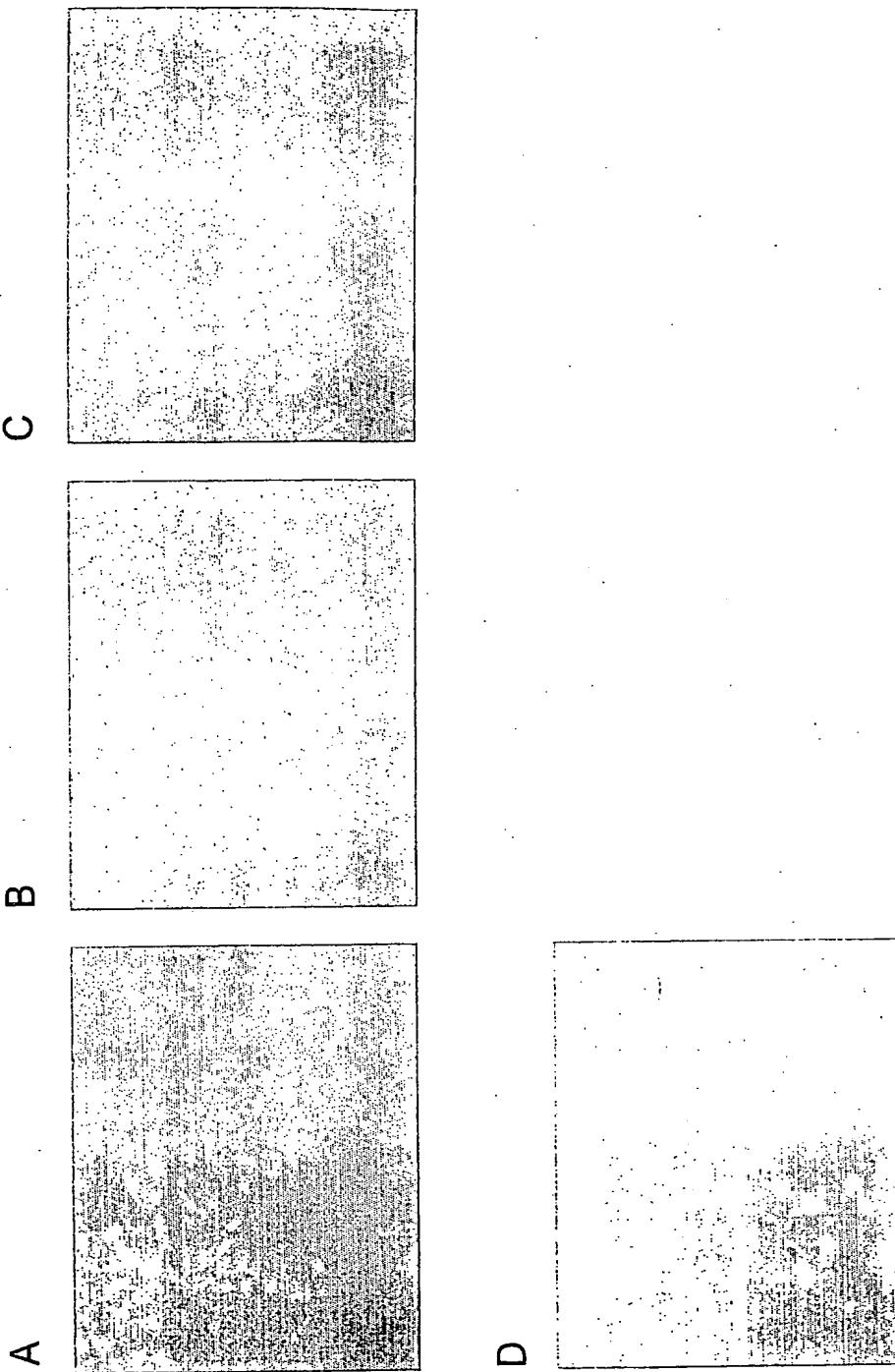


FIG. 31



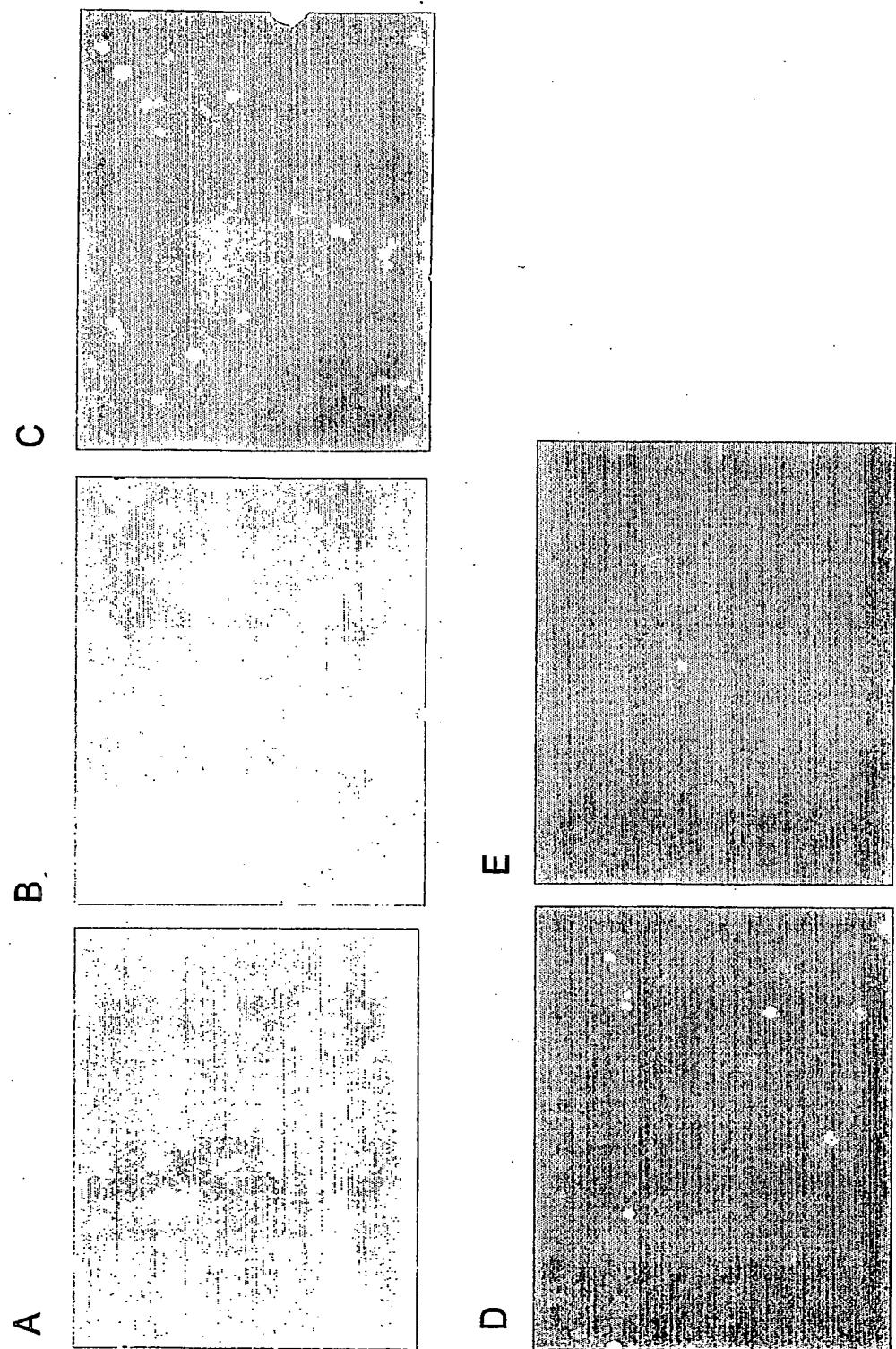
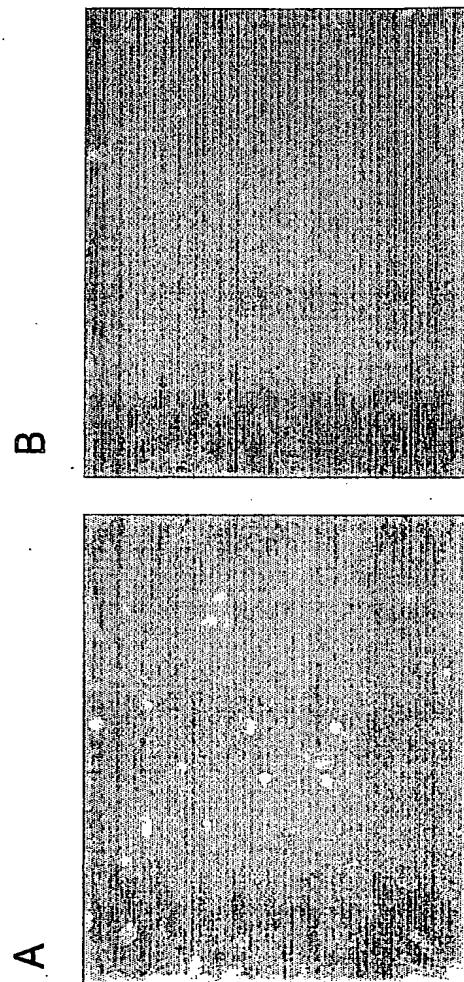


FIG. 33



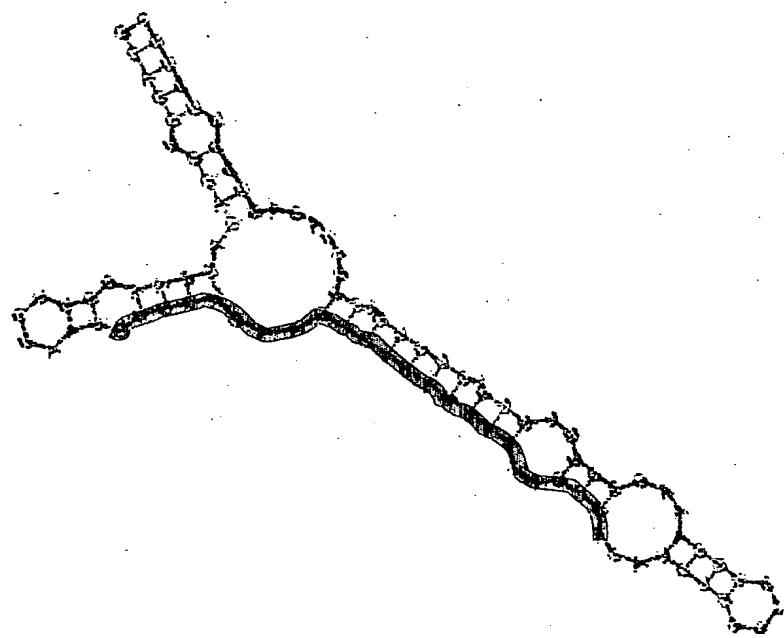
A

ACCTTGCCAAATCTGCCACATCGAACAGGTCAAACGGCTCGAAAGAGCTCGCTCGCTGGCCGAACCTTCACACA
 CCAGGGTGGACAGGAAGGTCTTAATGTTCTTAAGGCAACGGAACTGGGACATCTGGGCACTTCACCTCACCGA
 GGTGATGGCATGGGATGGGCACTGGGATGGGCTGGGTTAAGGAGCTGTCACACAGGGACACCAATCCGGAGGGCTGGGCACTGG
 CACACCTGAGCCCCATCCCAAGGTACGGGTTGGGCTGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGG
 GGGCCACAGGCTCAATGGGATGGGCTGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGG
 GCAAGACAGGGTGTAGATGCTGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 CTCTCCCTCTCAATGGGCTGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 CCTCTCCCTCAATGGGCTGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 GGGCTCAAGAAATGCTGCTGGGATGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 AGGGGCTCTCAATGTTGATAAAGGATCAATCTCAATGCTGCTGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGG
 TGGTGGCCCAAGGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 GCTGGCAACTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 ATCTGGCACTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 ATCAGGCACTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 TCGTGTGTTTACAGAGCTAGTGGGAATGGGATCTGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGG
 GCTGGCAACTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 ACTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 TGGACTACAGTCACTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCA
 GTGCACTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCA
 ACCTGGGCTCTCAATCAGGAGGAACATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCA
 AACTGGTCCATCCACTCTCTCAATCTCTCAATCTCTCAATCTCTCAATCTCTCAATCTCTCAATCTCTCAATCTCTCAATCT
 TCTGGGAAGTCATGGCCGG
 AGAAAGGTACCTCTAAGGAGCACTCTGACAGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGG
 GGACCCCTCCCCAGACACTCTTGTGACAGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCA
 CGCACTGTAGTTGTCTCTCAAGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCA
 GTAGTTCTGAAACACCTAGTCACTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 ATGTCCTCCACAGAGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCA
 CGTTATATTAAATCTGATGGGAAATCTGCTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 CTTTTCCTGGTCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGGGCACTGG
 AGCAATCCTTAAAGGAGTCATGGCTCTCTTCAAGGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGG
 GCTGATGGTCTCTTCAAGGGGCTGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGG
 GCGCAGAAGTCATAGGGGCTGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGGCACTGGG
 CCTTCTGGTAAAGGATCTTCACTGGGCTGGGCTGGGAGGGGAAACGGGACCCATGGGCACTGGGCACTGGGCACTGGG
 CGAGTTCTCATGTCAGGGCACATCCGGGAGGGCACGGGAGGGCACGGGAGGGCACGGGAGGGCACGGGAGGGCACGG
 CCCCTTGAGCCCCGCTGTTGAGGGAGGGCACGGGAGGGCACGGGAGGGCACGGGAGGGCACGGGAGGGCACGGGAGGGCACGG

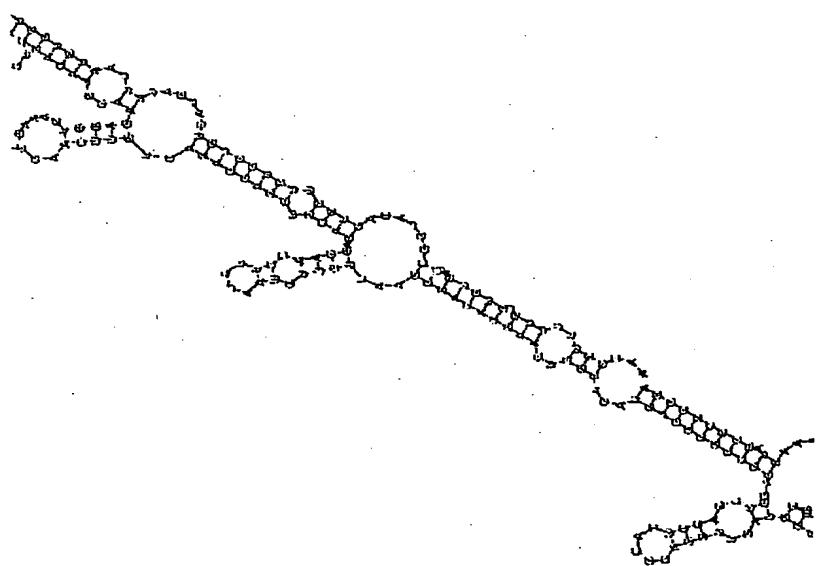
B

CCAGGTGGACACCAACGGTCTTAAGGACACAGGAACACTGGGACATCTGGGGCCAAAGCCCTTTCTCT
 GATCCGGTACAGTCCCTCTGC

FIG. 35



B



A

FIG. 36

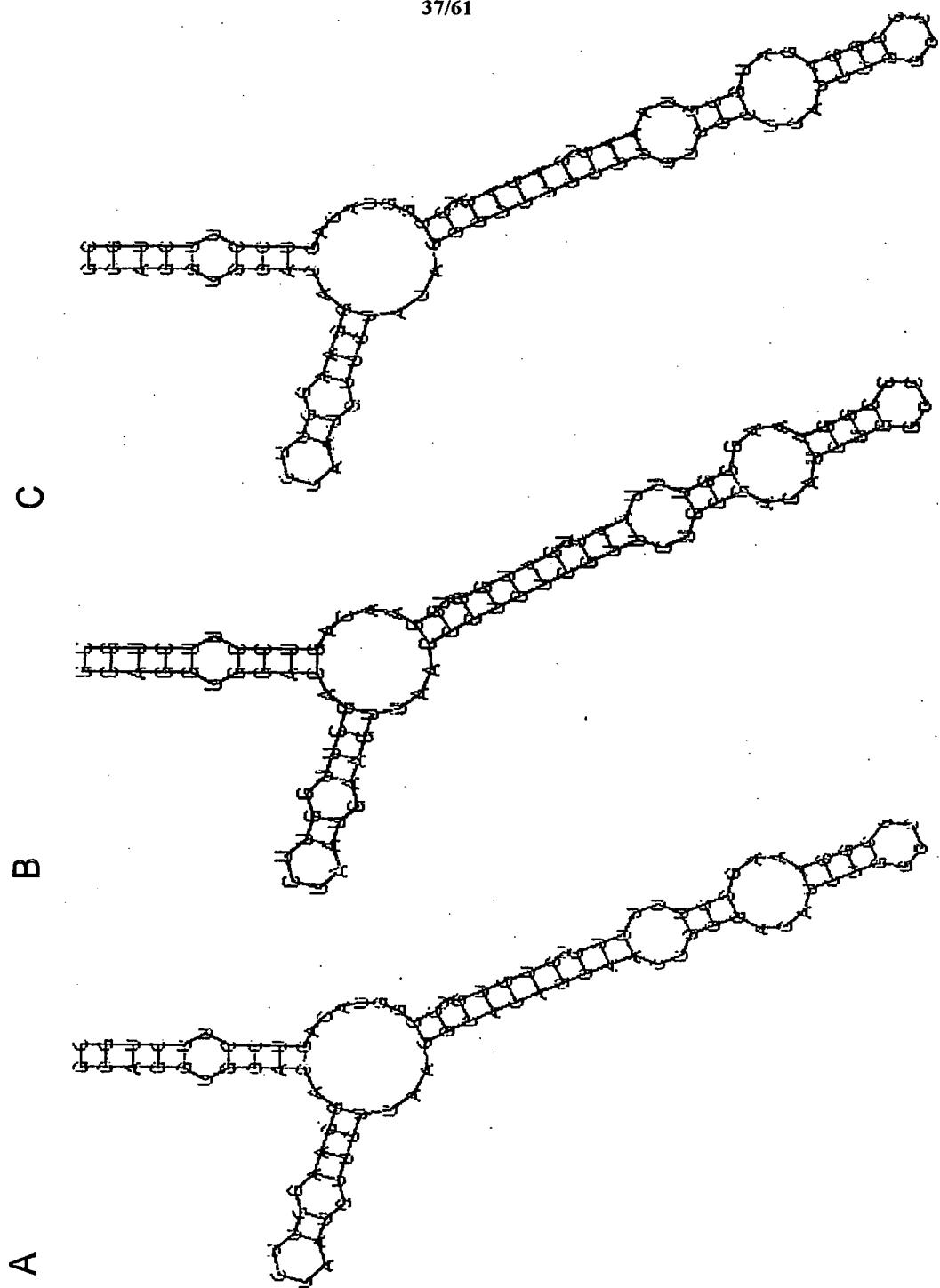


FIG. 37

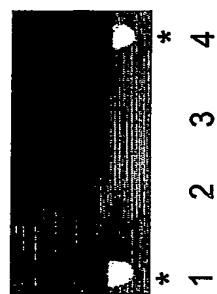


FIG. 38



A



B



C

FIG. 39



A



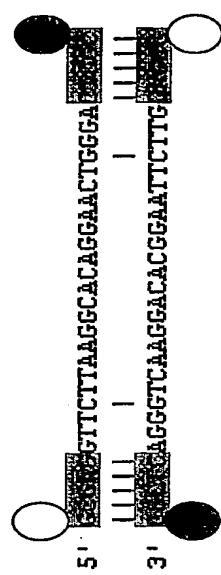
B



C

FIG. 40

B



A

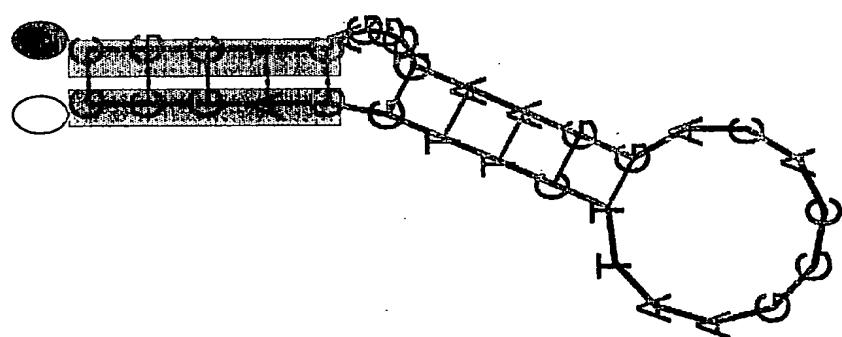
FP18 5' GCGAG GTTCTTAAGGCACAGGAACTGGGA CTCGC 3'

FIG. 41

A
GCAGGTGGACAGGAAGGGTTCTAATGTTCTTAAGGCACA
GGAACTGGGACATCTGGCCCCGGAAAGCCTTTCTCT
GTGATCCGGTACAGTCCTCTGC

B
GCAGGGTGGACAGGCTTGGTTCTAATGAAGGTTAACCCCTGT
CGTTCTGCGACATCTGGCCCCGGAAAGCGTTAACUGA
TGGAAUGAACAGTCCTCTGC

C
GCAGGGTGGACAGGAAGGGTTCTAATGTTCTATGGGTCT
GCTTGTCGCTCATCTGGCCCCGGAGATGC
AAAGTCAGACATCCGGTACAGTCCTCTGC

D
1 GTTCTTAAGGCACAGGAACTTGGGA
2 GAAGTAACCCTGTCGTCTGGCA
3 GTTCCTATAGGGCTGCTGTCGCT

50% different from target 1;
66% different from target 3
50% different from target 1

FIG. 42

A start
GCACGTTGGACAGGAAGGTCTAATGTTCTAAGGGACAGGAACACTGGGACATCTGGGCCGAAAGCCTTCTCTGTGATCCGGTACAGTCCTTC
TGC

B 1 GCAGGTGGACAGGCTTGGTCTAATGAAGTTAACCCCTGTCACATCTGGCACATCTGGCCGAAAAGCGTTAACTACTGACAGTACAGTCCTTC
TGC

C 2 GCAGGTGGACAGGCTTGGTCTAATGAAGTTAACCCCTGTCACATCTGGCACATCTGGCCGAAAAGCGTTAACTACTGACAGTACAGTCCTCT
TCTGC

D 3 GCAGGTGGACAGGCTTGGTCTAATGAAGTTAACCCCTGTCGTTCTGGCACATCTGGCACATCTGGCCGAAAAGCGTTAACTACTGACAGTACAGTCCTTC
TGC

E 4 GCAGGTGGACAGGCTTGGTCTAATGAAGTTAACCCCTGTCGTTCTGGCACATCTGGCCGAAAAGCGTTAACTACTGATGGTC
TCTGC

F 5 GCAGGTGGACAGGCTTGGTCTAATGAAGTTAACCCCTGTCGTTCTGGCACATCTGGCCGAAAAGCGTTAACTACTGATGGTC
C

modifications of sequence compared to previous sequence:

- G**
 - 1 underlined = change in bases
 - 2 [single bracket] = bases cut out
 - 3 [[double bracket]] = bases added
 - 4 [[double bracket]] = bases added
 - 5 underlined = change in bases

FIG. 43

A

start
GCAGGTGGACAGGAAGGTCTAATGTTCTAAGGCACAGGAACATGGGACATCTGGGCCGGAAAGCCTTTTCTGTGATCCGGTACAGTCCTTCTGC

B

1 GCAGGTGGACAGGAAGGTCTAATGTTCTAATGGGTCTGCTGTGCTGCTCATCTGGGCCGGAAAGCCTTAAGTCAAGATCCGGTACAGTCCTTCTGC
2 GCAGGTGGACAGGAAGGTCTAATGTTCTAATGGGTCTGCTGTGCTGCTCATCTGGGCCGGAAAGCCTTAAGTCAAGATCCGGTACAGTCCTTCTGC

C

3 GCAGGTGGACAGGAAGGTCTAATGTTCTAATGGGTCTGCTGTGCTGCTCATCTGGGCCGGAAAGCCTTAAGTCAAGATCCGGTACAGTCCTTCTGC
4 GCAGGTGGACAGGAAGGTCTAATGTTCTAATGGGTCTGCTGTGCTGCTCATCTGGGCCGGAAAGCCTTAAGTCAAGATCCGGTACAGTCCTTCTGC

D

5 GCAGGTGGACAGGAAGGTCTAATGTTCTAATGGGTCTGCTGTGCTGCTCATCTGGGCCGGAAATGGTTAAAGTCAGACATCCGGTACAGTCCTTCTGC
6 GCAGGTGGACAGGAAGGTCTAATGTTCTAATGGGTCTGCTGTGCTGCTCATCTGGGCCGGAAATGGGT[G]ATGGGT[T]

E

F

AAAGTCAGACATCCGGTACAGTCCTTCTGC
6 GCAGGTGGACAGGAAGGTCTAATGTTCTAATGGGTCTGCTGTGCTGCTCATCTGGGCCGGAAATGGGT[G]ATGGGT

G

AAAGTCAGACATCCGGTACAGTCCTTCTGC
1 underlined = change in bases
2 underlined = change in bases
3 underlined = change in bases
4 underlined = change in bases
5 [single bracket] = bases cut out
6 [[double bracket]] = bases added

H

FIG. 44

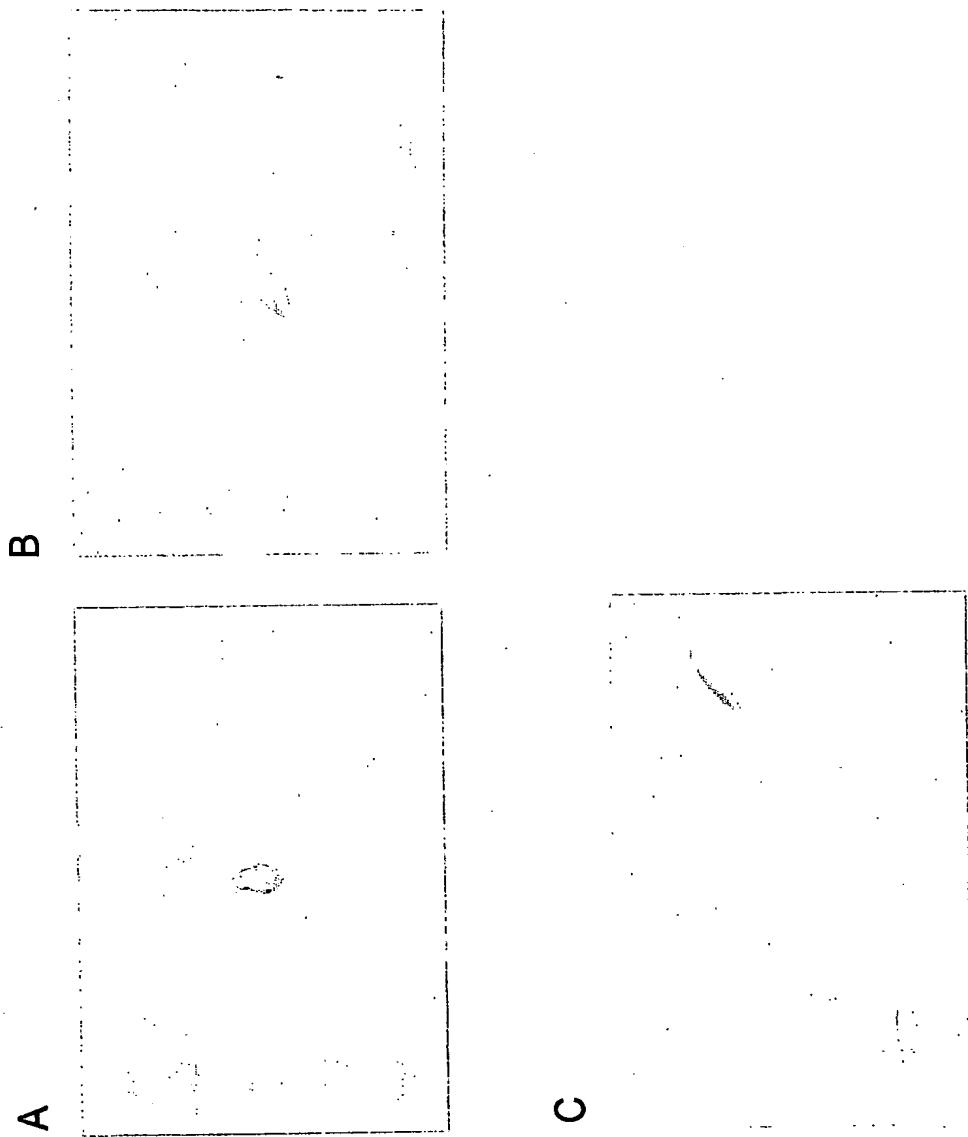


FIG. 45

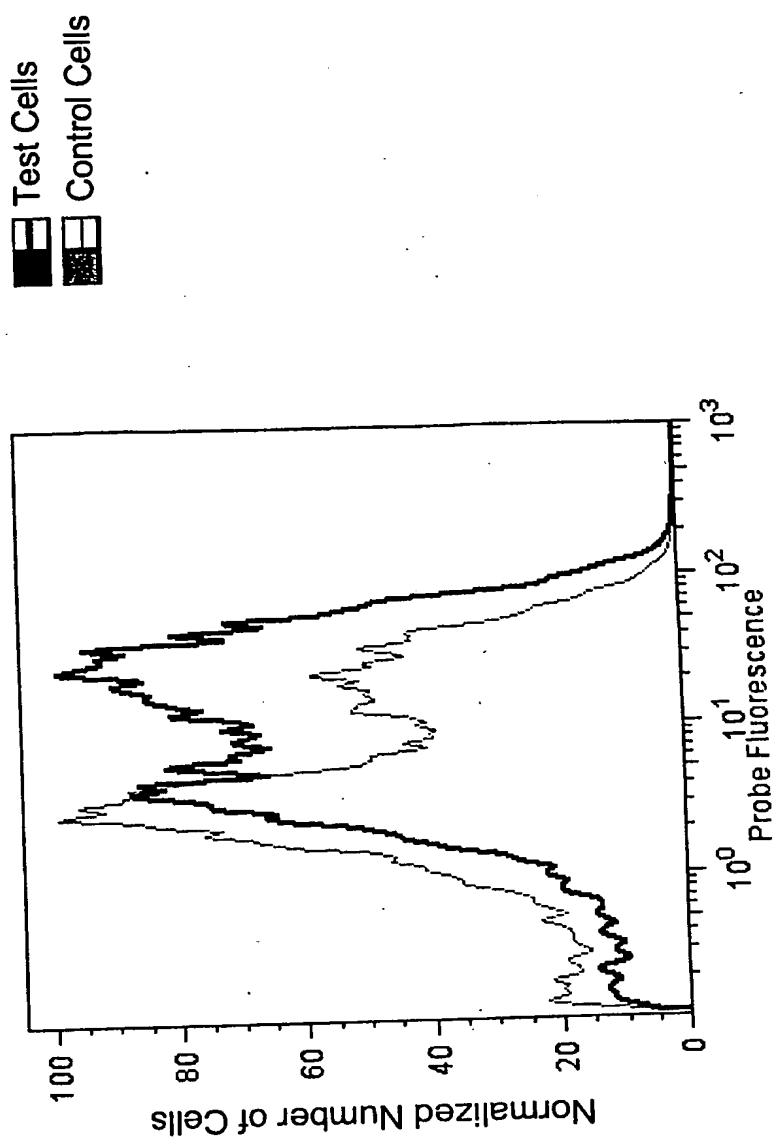


FIG. 46 mcon1

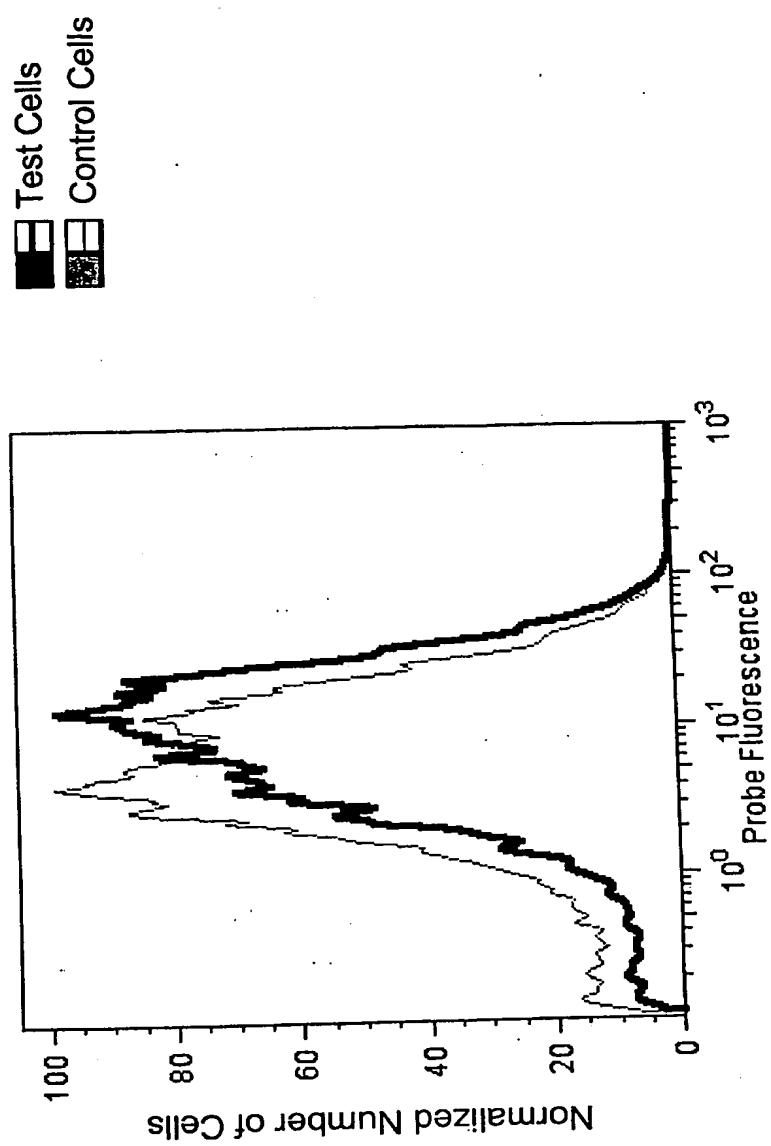


FIG. 47 mcon2

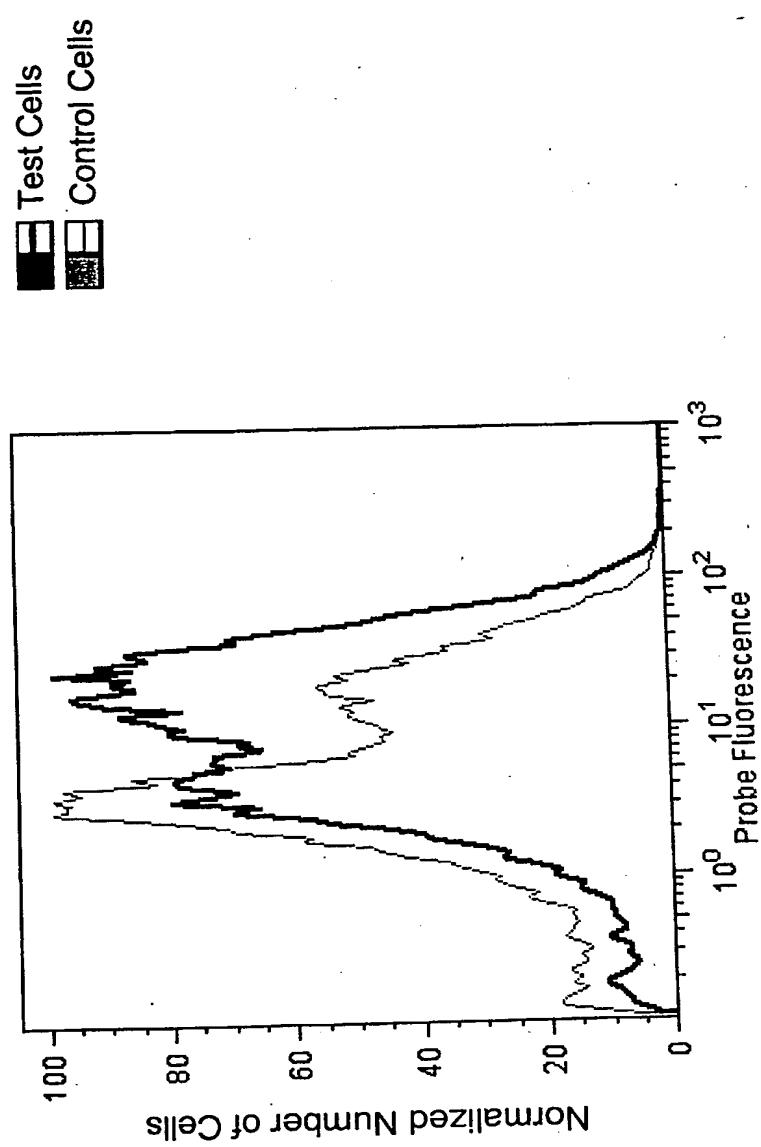


FIG. 48 mcon3

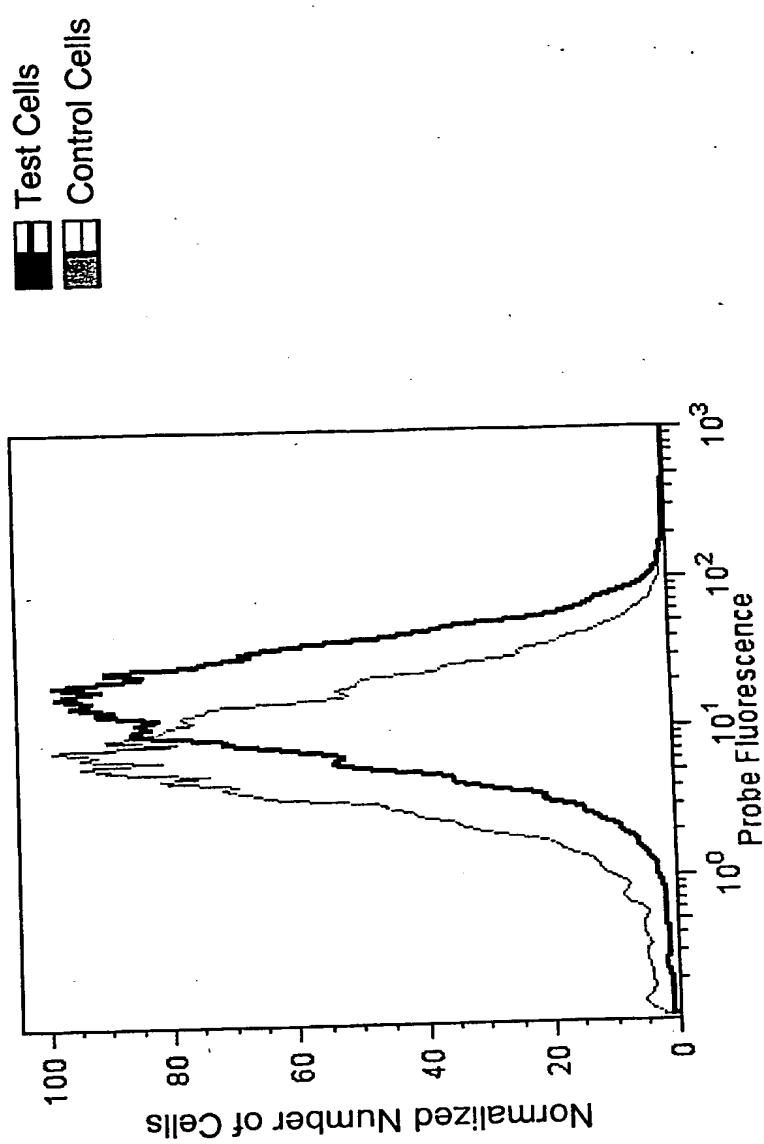


FIG. 49 mcon4

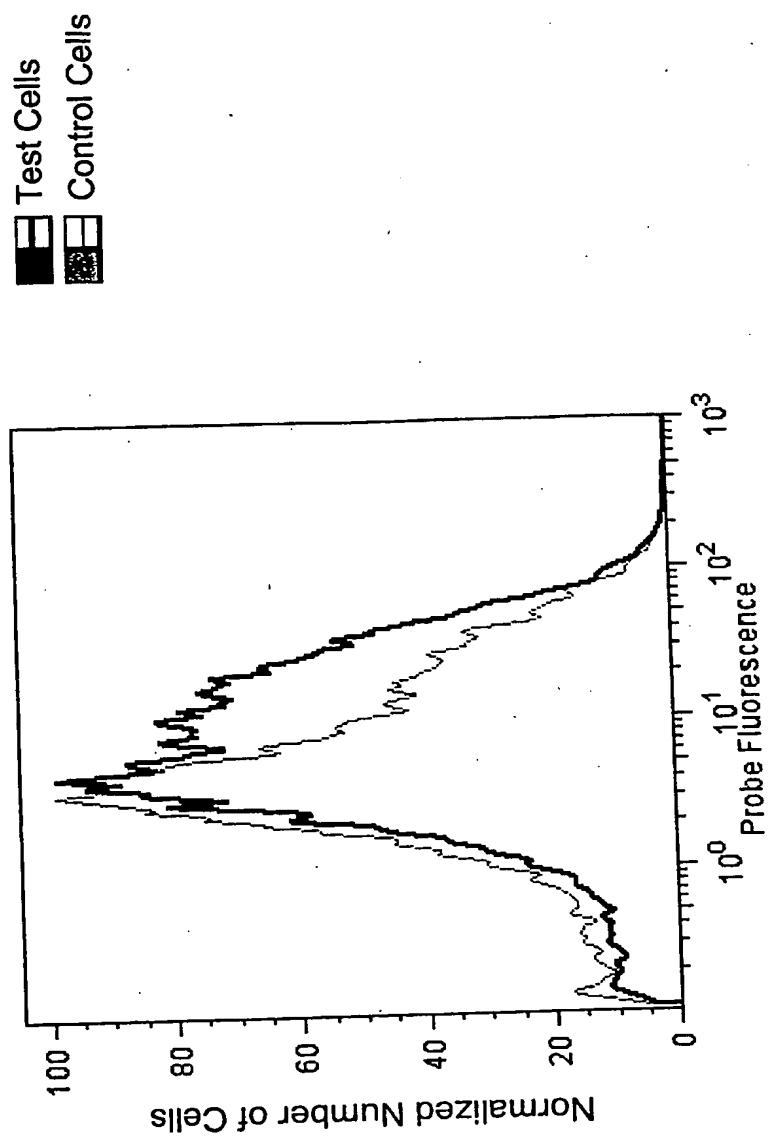


FIG. 50 mcon5

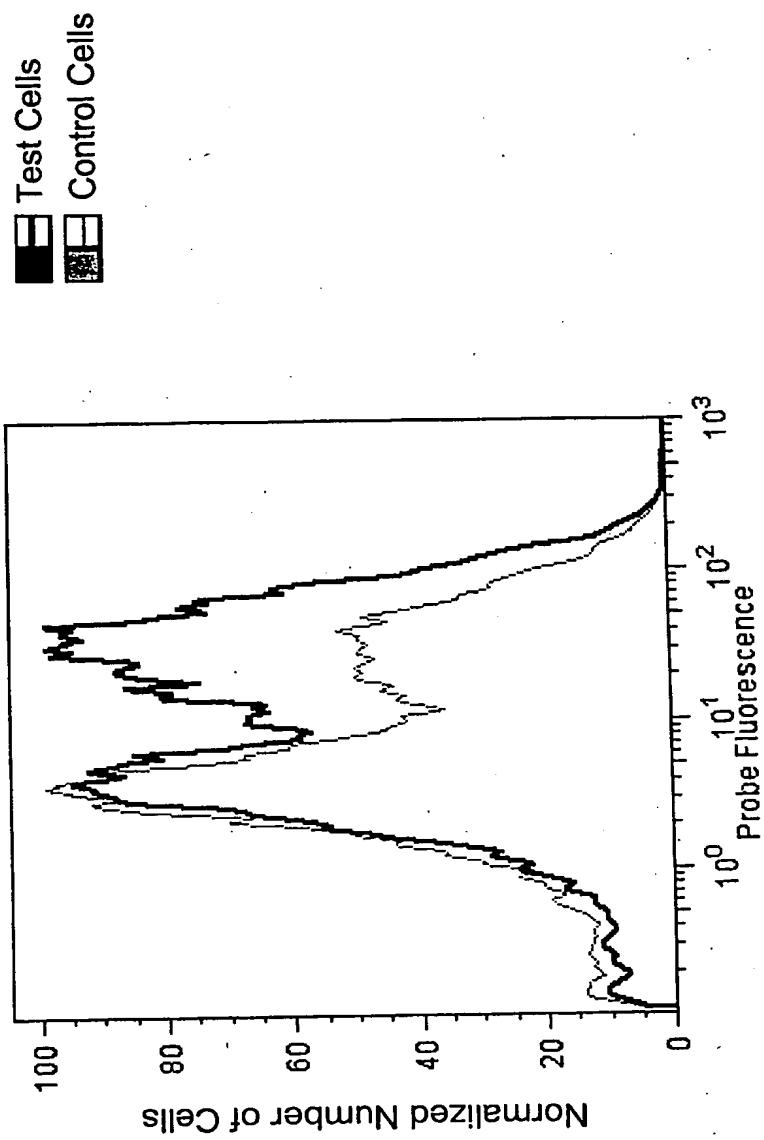


FIG. 51 mcon6

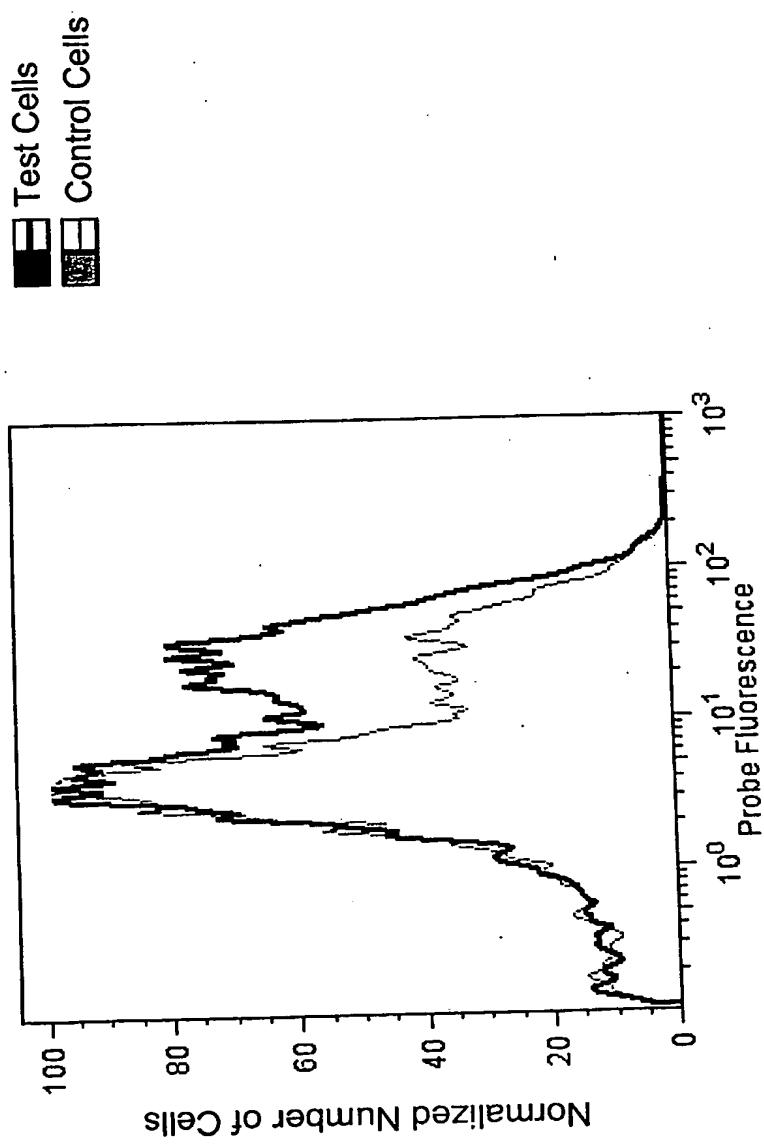


FIG. 52 mcon7

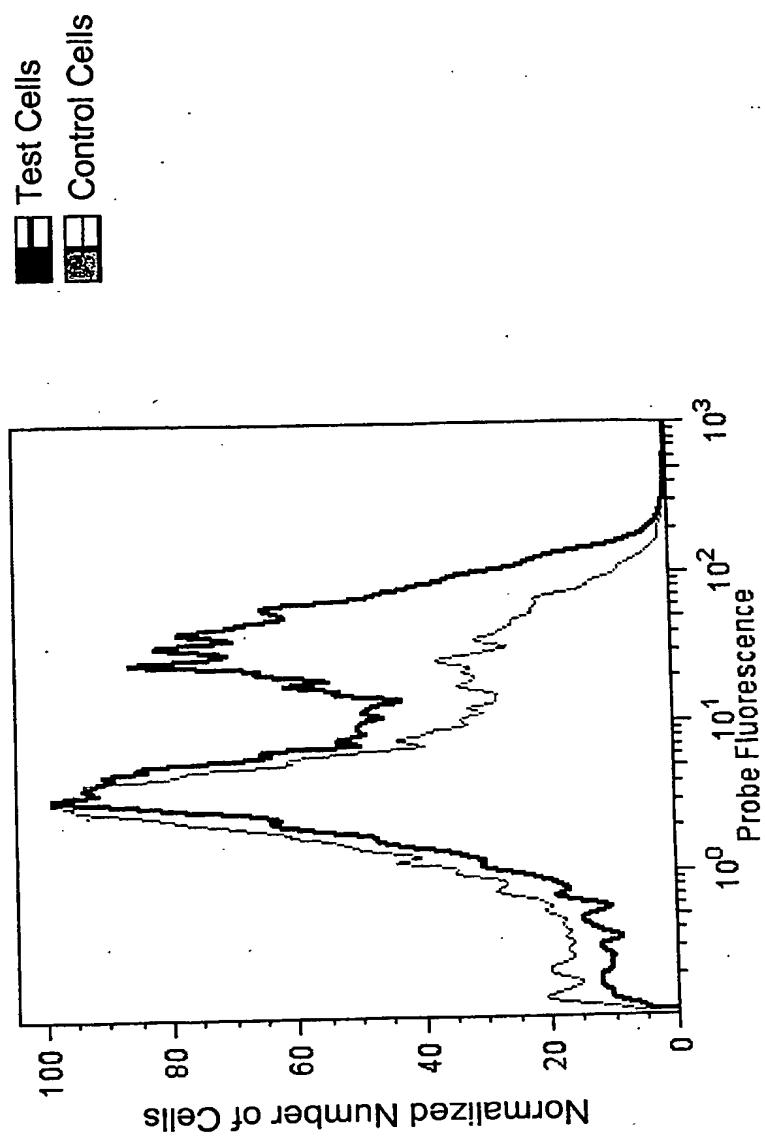


FIG. 53 mcon8

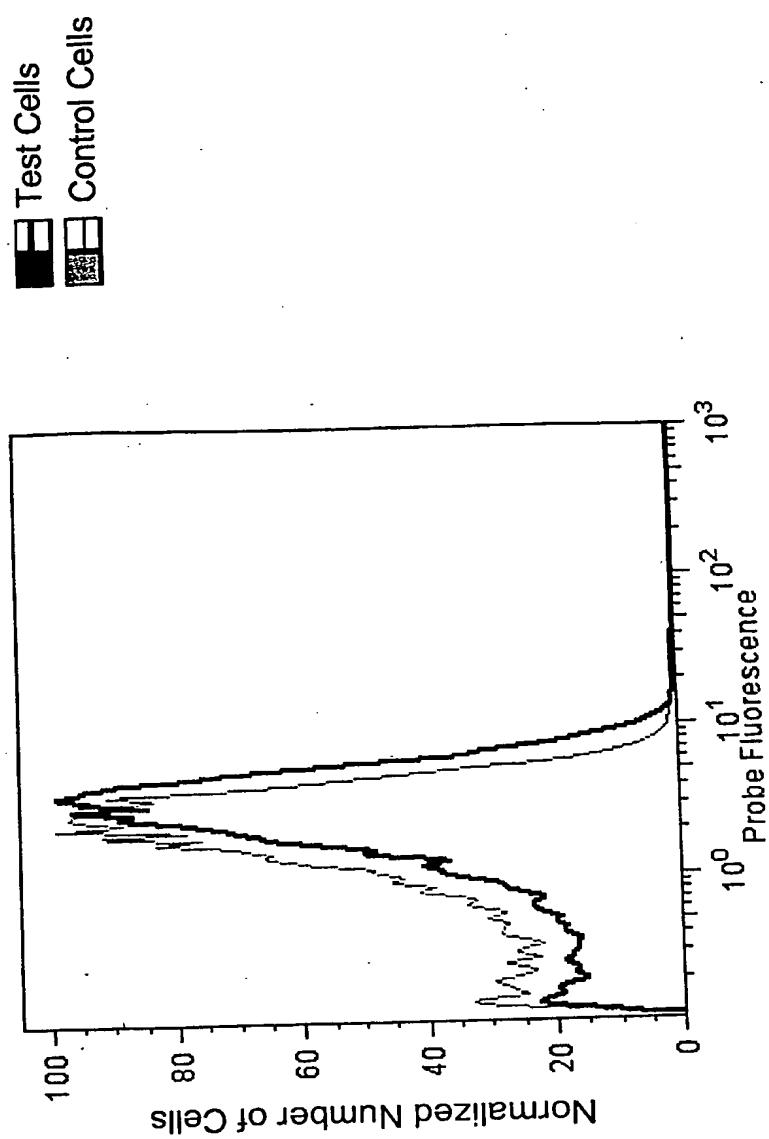


FIG. 54 mcon9

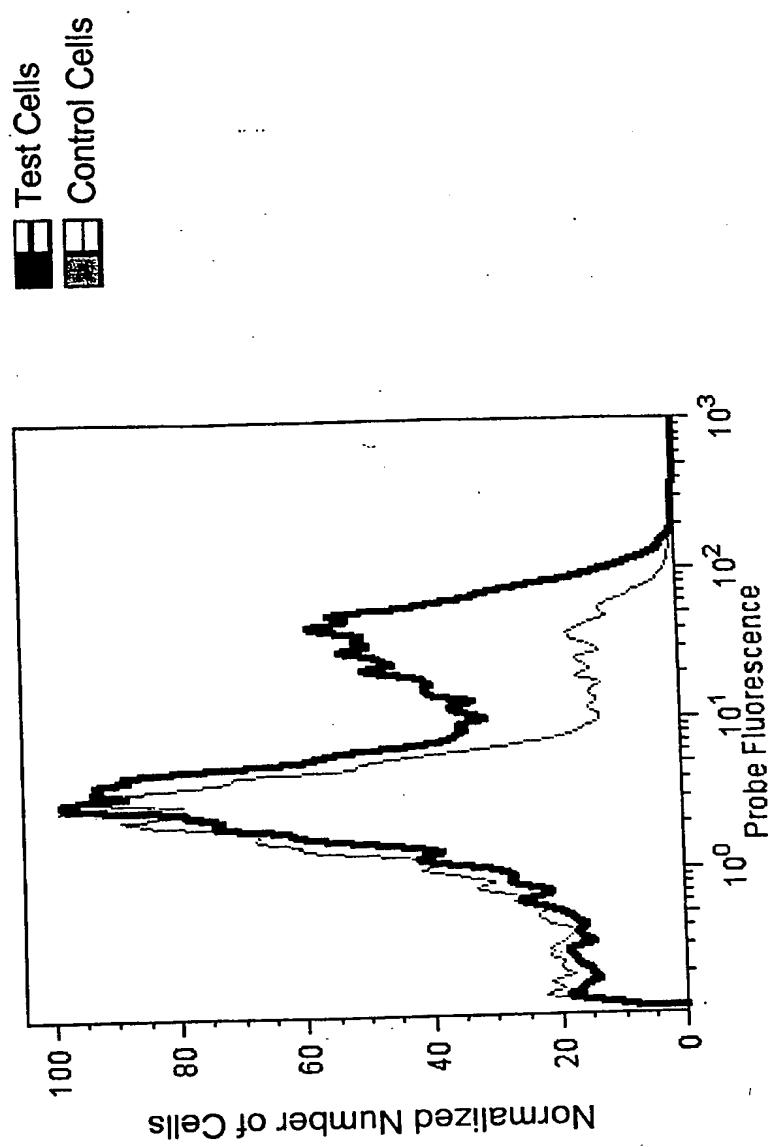


FIG. 55 mcon10

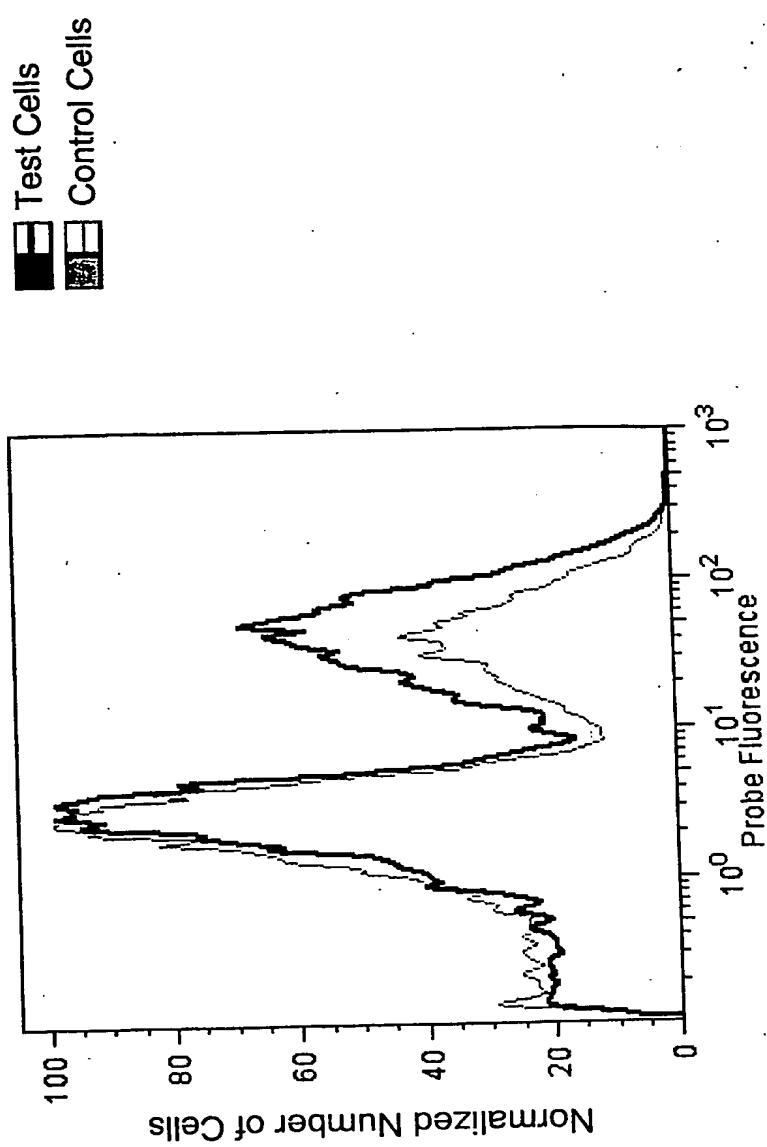


FIG. 56 mcon11

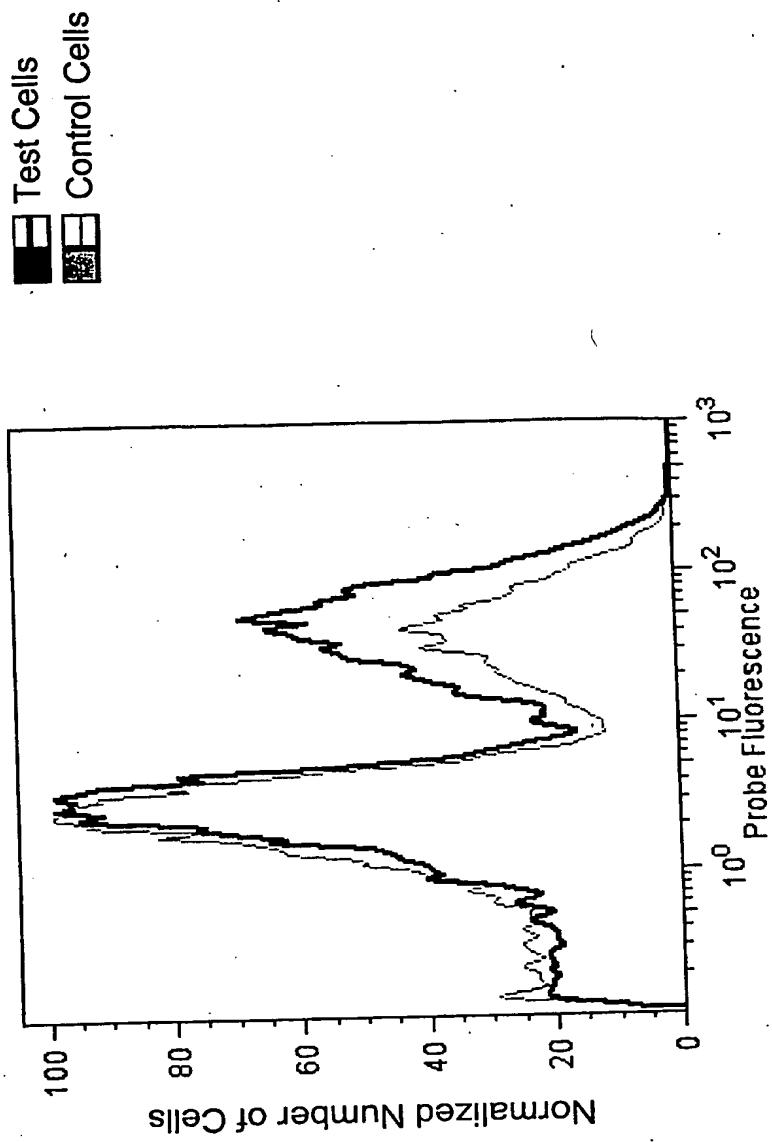


FIG. 56 mcon11

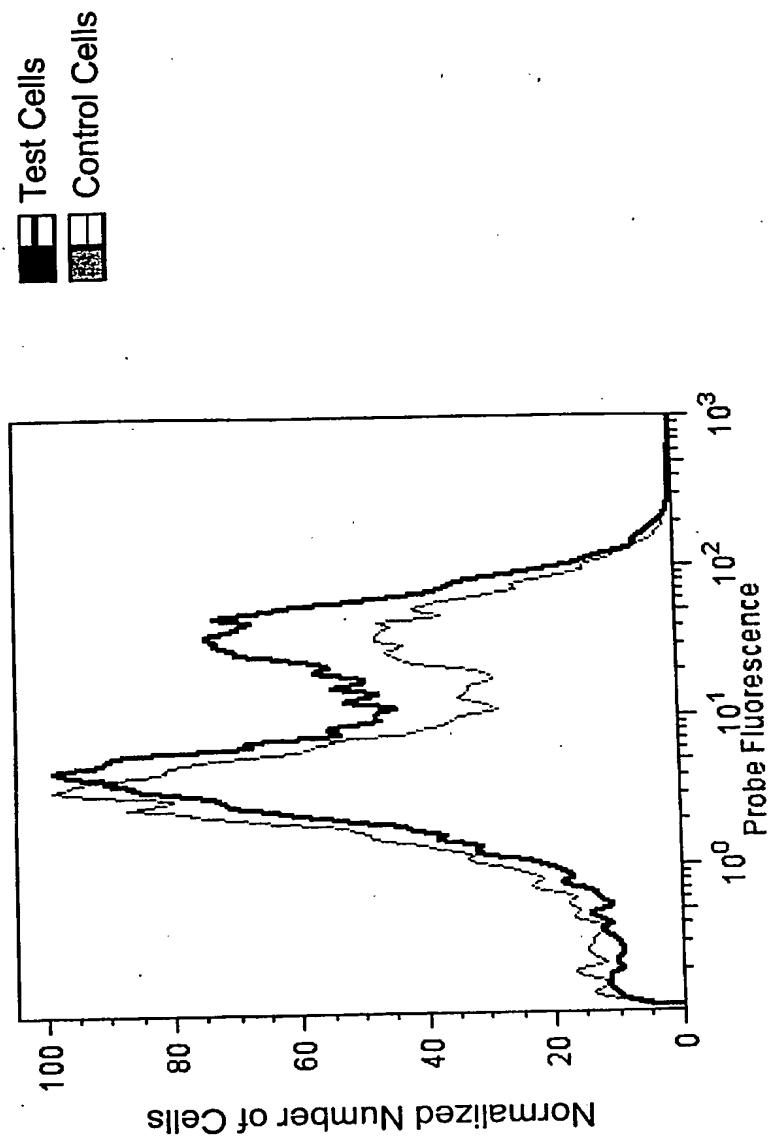


FIG. 57 mcon12

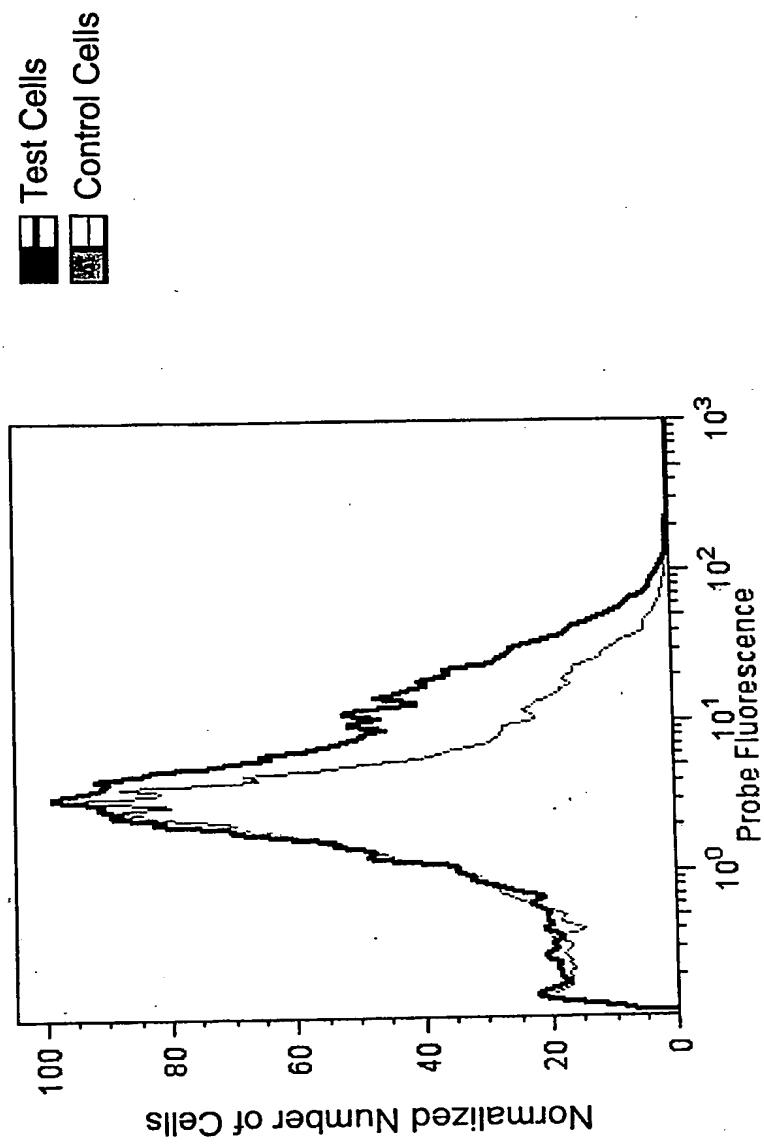


FIG. 58 mcon13

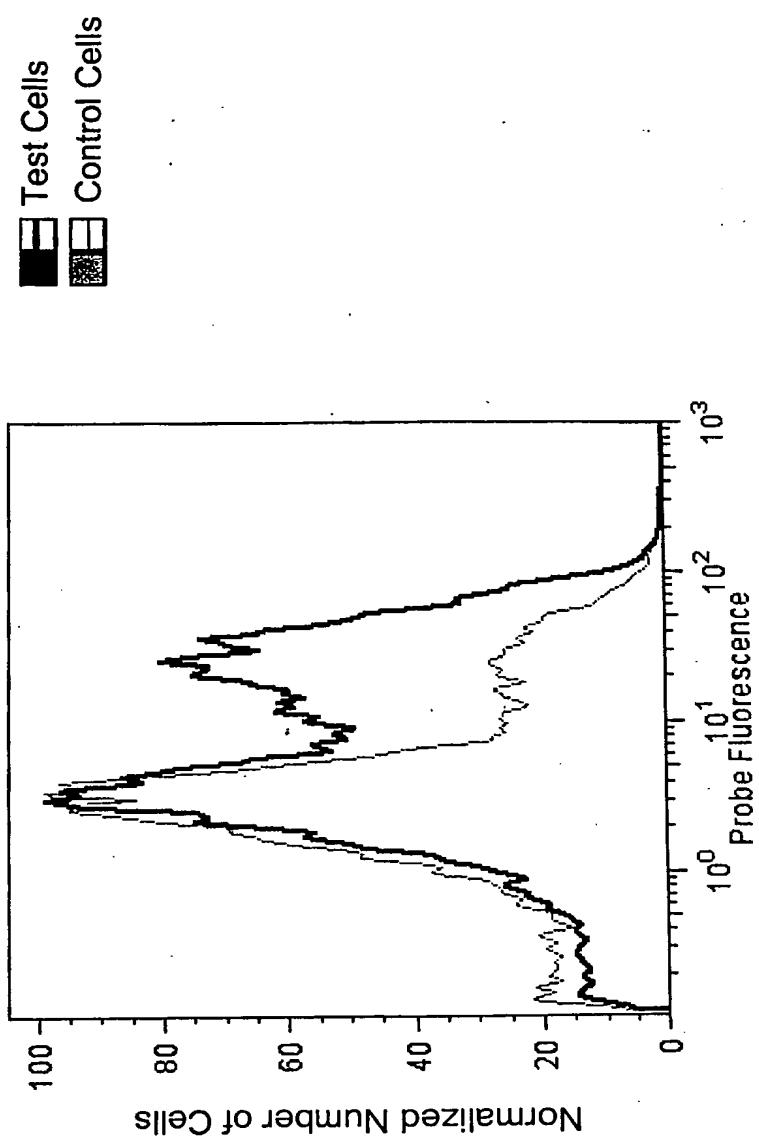


FIG. 59 mcon14

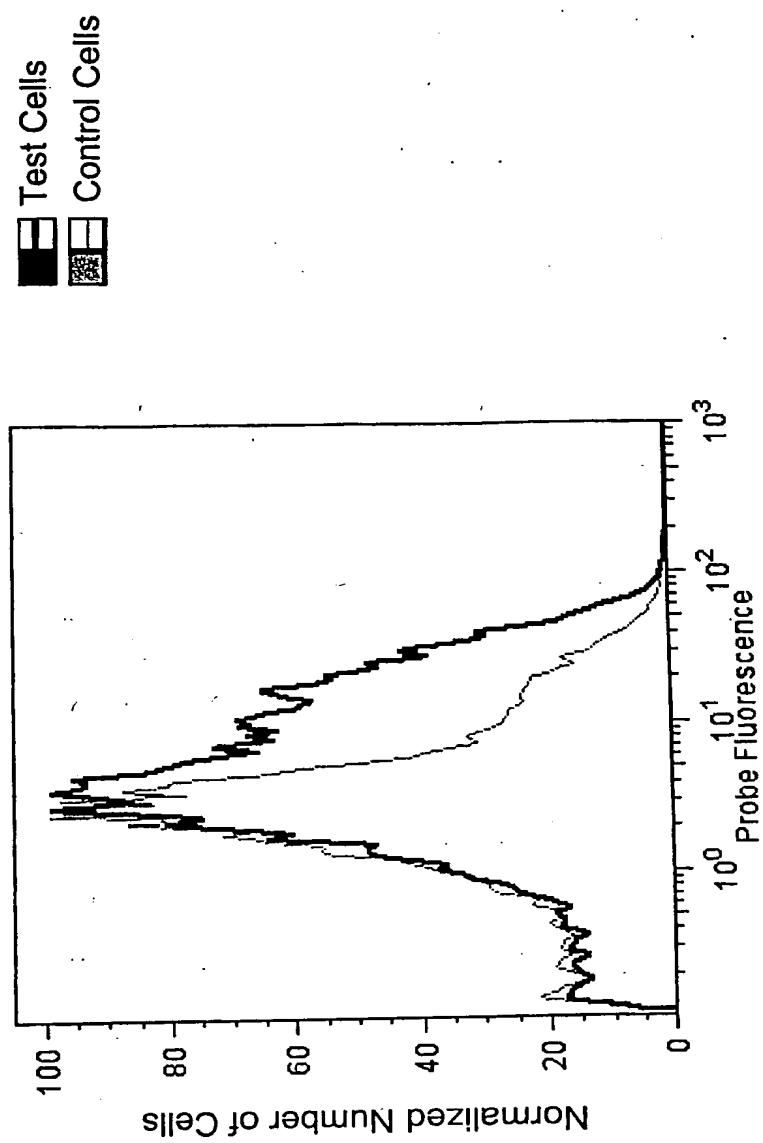


FIG. 60 mcon15